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ABSTRACT

The status of early detection of handicaps in children as well as teacher/parent awareness and involvement in the intervention process are reported for nine countries as part of a 1978-1979 study conducted by the United Nations Educational, Scientific, and Cultural Organization. Case studies and an overview of case-study findings are presented for the following countries: Argentina; Canada, Denmark, Jamaica, Jordan, Nigeria, Sri Lanka, Thailand, and the United Kingdom. In addition, attention is directed to the implications of the status of early care for handicapped children for the future development of policies and services in different countries. Important issues include the following: initiating early detection and intervention; the role of the family of a handicapped child; coordination among such bodies as the central government, local communities, and voluntary organizations; normalization of the handicapped; the need to follow detection by active intervention rather than labeling and institutional placement; constraints to the development of early care services; prevention; staff development; and information dissemination. (SEW)

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Handicapped Children: early detection,
intervention and education

Selected Case Studies from:
Argentina, Canada, Denmark, Jamaica,
Jordan, Nigeria, Sri Lanka,
Thailand and the United Kingdom

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UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

HANDICAPPED CHILDREN: EARLY DETECTION,
INTERVENTION AND EDUCATION

Selected case-studies from:
Argentina, Canada, Denmark, Jamaica, Jordan, Nigeria,
Sri Lanka, Thailand and the United Kingdom

PREFACE

The last decade has witnessed an increasing emphasis on prevention and early intervention aimed at eliminating conditions which make for handicaps or minimizing the long-term effects of such handicaps.

Without underestimating the significance of primary prevention, it is becoming increasingly evident that early detection of handicaps, a secondary form of prevention, is the key to improving the quality of life for children with impairments. The importance of early detection, however, cannot be assessed in isolation, for it is basically through the intervention programmes which follow that we can minimize, or possibly avoid, the development of secondary defects which later on complicate the existing primary handicap.

In 1978-1979 Unesco undertook to examine the situation with regard to the early detection of handicaps in children and ways of making parents and teachers more aware and involved - aware of the different forms of handicap and the needs arising therefrom, and involved in action to meet these needs. Nine studies were carried out in co-operation with the National Commissions for Unesco in the following countries - Argentina, Canada, Denmark, Jamaica, Jordan, Nigeria, Sri Lanka, Thailand and the United Kingdom.

Different measures for the early detection of handicaps exist, and the same applies to early intervention programmes. These vary from one country to another. In some, experience in this area has been quite extensive and is developing in a systematic manner, in others, action is very recent.

Part I of the present document offers in synthetic form an overview of the salient points in the nine studies. Part II covers the individual studies as presented by their respective authors, while Part III sums up the situation of early care for handicapped children in a way that can be useful for the future development of policies and services in different countries.

Karl-Gustaf Sjukát of the Göteborg School of Education, Sweden, has contributed the introduction and conclusion.

The opinions expressed by the authors of this document are their own and do not necessarily reflect the views of Unesco.

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PREFACE

INTRODUCTION

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CONCLUSION

K-G. Stukát

I. INTRODUCTION

K-G. Stukát

Background and purpose

There is accumulated research evidence about the vital importance of the earliest years of life for the individual's later development. During infancy the child is most adaptable and impressionable, and during this period basic patterns of behaviour and - no less important - basic attitudes to life are formed. This holds true also for handicapped children, and for them the consequences of adequate stimulation (or lack of stimulation) at an early age are still more decisive than for the non-handicapped child. During this early malleable phase the child stands the best chances of improving disabilities and impaired functions and developing efficient compensatory patterns. At a very young age there are also particularly sensitive or even critical periods when the child needs intense stimulation in order to learn adequately and avoid permanent retardation. Besides the primary effects of a disability or dysfunction, there is always the risk of secondary consequences in the form of negative self-image, passivity, dependency and unhappiness. Only through early action can such disadvantageous additions to the primary handicap be counteracted.

Against this background it is most encouraging to note that the problems of early detection, intervention and special education have come into focus during recent years. Up to now the emphasis of handicap care has been on special education at school age and rehabilitation with adults. Necessary as these activities are, they cannot compensate for a lack of efforts made at an early age.

However, information about early handicap problems and about ways to identify and stimulate handicapped infants is not yet very widespread. The purpose of the present Unesco national case-studies is to describe the existing situation in a number of countries and also to present current plans and experimental programmes. Together, the national reports will constitute a useful source of information, ideas and suggestions that should be of great value in the present state of developing programmes, procedures and organizations for the care of young handicapped children.

Before presenting the national reports at full length, a review will be given of some salient points in the papers. In the conclusion that follows the reports, the national experiences will be summarized so as to serve as guidelines for further development of early detection and intervention services.

General review of the national reports

Argentina. The report presents a five-step model of identification, intervention and dissemination of information, including pre-natal, peri-natal, post-natal, initial years and pre-school stages. To each of these stages corresponds a set of instruments and organizations for early care, above all different health, social welfare and educational activities. Of special importance for current work with handicapped children in Argentina are the Infant Consultation Unit and the Day Unit, which are based on the rationale that educational intervention should begin as early as possible. It is stressed in the paper that early detection does not yet exist as an organized service but is performed by institutions that have this function as a secondary objective. It is also pointed out that the various services are isolated and uncoordinated. However, recent policy documents emphasize the need for early detection and treatment of handicaps, and plans are drawn up for needed action. The plans recommend joint action by family, school and community, intensified dissemination of information through various media (ample examples are given) and measures for creating community awareness of the need for special education. The paper concludes with a number of desirable developments:

the establishment of a larger number of nationally organized services for the prevention, diagnosis and treatment of handicapped children;

the co-ordination and centralization of efforts;

increased awareness of handicap problems in the community;

the creation of regional mobile teams to carry out on-the-spot assessment and treatment services.

Canada. The Canadian paper starts with a background of developments during the last 20 years. During this period there has been a quantitative growth of services for handicapped children; these services have increasingly become oriented towards integration and normalization, and to a growing extent the importance of early identification and intervention is being realized.

Expectant mothers are given the opportunity to enrol for ante-natal classes where they are given advice on problems connected with childbirth. Expectant mothers are usually under the supervision of their family doctor throughout their pregnancy. Particular attention is paid to high-risk pregnancies, such as very young and very old mothers, and women suffering from anaemia, diabetes, venereal disease and rhesus factor complications. Detection and intervention are preceded by primary prevention.

The Canadian Health Programme includes a broad set of medical screening tests given to the child at an early age. The provinces have also programmes of vaccination, although it is pointed out in the paper that the national immunization programme is not quite complete. For further health care there is a network of community health services. For treatment, parents of a handicapped child are referred to a reception centre staffed by psychologists, social workers, physiotherapists, speech therapists and other special teachers. The institutional role of these facilities is tending to diminish whereas family oriented services are tending to increase.

Family orientation is a characteristic feature of ongoing projects of early intervention described in the paper. The Portage Programme is used in connection with home-care services, with a teacher helping parents and preparing them for training and stimulating their handicapped child. The first part of the programme consists of an assessment of the child's development. To each functional area corresponds a series of learning activities for the child and an instructional guide. The programme is action-oriented. Emphasis is more on the development of the child than on diagnostic classification. The programme is intended to help parents teach their child but not to label him as belonging to any specific category of handicap. The Portage principles are also applied in a scheme for the organization of integrated community services for retarded people, called the Servcom network.

Another programme gives assistance to families with a mentally retarded child by making available to them the services of a mobile, multidisciplinary team of specialists who provide various kinds of help: diagnosis, treatment and education. The primary purpose of the project is to offer services to families in rural areas in their own community.

As mentioned, a characteristic feature of the new Canadian intervention programmes for very young handicapped children is the central role of the family. Great care is given to meeting the needs of the children and their families. The family provides continuity between various specialized services. Services are organized so as to avoid sending the child to a reception centre. Parents' associations are involved in the planning, running and supervision of the services. Another example of the family centred approach is the "parent helper scheme" by which parents who have just learnt that their child is handicapped are brought into contact with more experienced parents.

The general philosophy behind developments in which the family plays a core role also emphasizes normalization, integration and maximum use of local community services and resources. In a special section of the paper some consequences of this view are discussed. Home care implies the recognition of parental aptitudes, and in order to make contacts and communication with specialists easy, the latter should not be too "professional" in their interaction with the parents. One has also to be aware of the risk that institutions bring with them certain patterns when they go out into open community services. It is also maintained that staff training is not necessarily a matter of specialist training. The training must make the care personnel receptive to the needs of handicapped children and their families and make them see handicap problems in a broad social perspective and not only from a specialist's viewpoint. Another consequence is the need for better parent information and training through various channels. The paper attaches particular significance to making secondary school students aware of handicap problems. Reference is made to courses of handicap knowledge for secondary school students and also to preparation in school for voluntary work with handicapped children. A main rationale behind these activities is that the youngsters of today will be the parents of tomorrow.

Denmark. Although there is not a general risk programme for infants enacted by law, Denmark has a well developed, county-based system for prevention, early detection and intervention. In the 1980s nation-wide registration is planned so as to make it possible to offer all pre-school children the same special education services that are now given to children of school age.

For ante-natal and post-natal care established practices have existed for some time. Expectant mothers are entitled to five free medical examinations. These opportunities are quite widely utilized; almost 100 per cent take the first examination and about 80 per cent the following examinations. Besides general health inspection, tests of amniotic fluid are made in order to prevent chromosome diseases and hereditary metabolic disorders. Preventive medical

examinations of the children are offered on nine occasions between birth and the age of six. These offers are accepted by the parents more frequently during the child's first year (95 per cent) than at the age of six (45 per cent).

Up to now the routine examinations have concentrated on the physical aspects of the child's development. At present a reorientation is under way, emphasizing the psycho-social aims of the examinations. This broader aim on the diagnostic side, together with the need for social and educational intervention supplementing medical treatment, has made interdisciplinary co-operation a necessary prerequisite. The Danish paper presents an interesting model for co-operation between health, social and educational-psychological sectors: the Karlebo model.

The Karlebo model involves co-operation at different levels: administrative, institutional and service-level. The most concrete form of co-operation takes place at meetings where problems of individual children are discussed. At these meetings anybody who can contribute to the solution of the problems is invited: psychologist, teacher, social worker, health visitor, doctor, nurse and other specialists - as well as the child's parents. The main executive body is an educational-psychological service team (EPS), staffed by psychologists, a social worker, consultants for speech and hearing, mental retardation, socio-emotional disorders and special education. EPS works on different levels. On the macro-level relevant information is presented to politicians and administrators. On the institutional level seminars are arranged for teachers and other staff at nurseries and schools; participation in parent meetings and study groups also forms part of these activities. Work on the individual level includes treatment, education and family service.

The report gives a survey of current provisions for early intervention in Denmark. One trend that is clearly discernible - and has been a feature of Danish handicap policy for several years - is the aim to prepare the child for as normal a life as possible. In order to make ordinary schools and institutions capable of handling the extra problems that arise when handicapped children are integrated, local authorities may pay the salary of a "support educationist". Also characteristic of Danish care for young handicapped children is parent involvement, both in the decision process and in care activities. Personal contact with the families is seen as the most efficient communication and implementation channel. Tact and openness are stressed as the key elements of staff-parent interaction. There are certain occasions (birth, health visits, starting school) when parents are particularly sensitive and receptive to information, and these occasions are utilized for an intensified dissemination of knowledge.

Jamaica. The first part of the Jamaican paper describes a number of constraints which hinder the development of provisions for early identification and intervention, such as lack of knowledge of handicapping conditions, inadequate procedures for diagnosis and treatment, lack of co-ordination, shortages of teachers and inadequate space and equipment for special education, poverty, weak family structure, poor social welfare services and negative attitudes to handicapped people.

In the second part of the paper is presented a model for "simplified special education" which takes the constraints into consideration. The model is applied in the Jamaican Early Stimulation Project (ESP). ESP includes four components: early identification, assessment and individual programme planning, training and re-evaluation. The project operates from a community-based office in contact with health services, agencies for the handicapped, and hospitals. Community women visit the children and their mothers and work with them, using a relatively simple training package.

For the task of identifying handicaps ESP has utilized school-leavers and youth corps workers who have been trained in screening techniques, mainly the Denver Developmental Screening Test. After screening comes assessment of the type, severity and causes of the disability, and also assessment of the needs of the child and its family. The assessment is performed by a visiting team consisting of youth corps workers and professional supervisors (doctor, nurse, teacher, social worker). The assessment protocol constitutes the basis for an individual programme. In most cases the Portage check-list of developmental skills and the Portage curriculum are used for the home training programme. The programme is presented by a child development aide who visits the home weekly, demonstrates learning activities, and gets the mother to model them with the child. Every three to six months the programme is evaluated and if necessary revised.

Experience so far has shown that early detection and intervention can be implemented at low cost. It is emphasized in the report that long-term evaluation should be performed to determine whether the initially encouraging results will be confirmed.

Jordan. The situation for the handicapped in Jordan is described developing, but still in need of much improvement. In spite of certain initiatives which have been taken, the handicapped group has remained marginal in respect of planning, interest and scientific study. In particular, resources are lacking for intervention. The report presents two tables which are revealing when compared with each other. In one table the age of discovery of handicap is given, and the other gives the age of diagnosis and admission to rehabilitation. It can be seen that a high proportion of the handicaps are discovered during the first two years of life; however only a small proportion of the handicapped children receive treatment.

Current plans reflect an ambition to increase the resources for early detection and treatment. The plans are focused on the maternal and child health centres, the current programme of which is described in some detail. At present there are about 50 centres in Jordan. The Ministry of Health is planning to establish one centre for each group of 10,000 persons, which will mean 200 centres for the whole of Jordan. The centres are regarded as the backbone of preventive medicine and the only realistic means so far for efficient detection and intervention.

A number of examples are given of the growing concern for handicapped children. An independent directorate for special education has been established which has initiated rehabilitation programmes, appointed social counsellors, designed training programmes and launched campaigns for the dissemination of information. Other initiatives are a family guidance division and a national committee for the provision of services for mentally retarded children. The Mental Health Association plays an important role in spreading information and creating awareness of the problems of mentally retarded children. It organizes seminars and lectures and each year it launches a weekly campaign. Other recent undertakings are a comprehensive survey of the status of all handicapped groups in the country and the establishment of a department for special education at the Jordan University, offering diploma programmes in special education for different groups of personnel at rehabilitation institutions.

Nigeria. The Nigerian report is based on a questionnaire sent to each of the Ministries of the Federal Republic of Nigeria and on interviews with persons responsible for health education and social welfare. It is shown that older beliefs and practices exist parallel with modern views and activities related to handicap problems. A study of prevalent beliefs as to the causes of handicaps revealed that in many subcultures handicaps are regarded as consequences of offences against gods, law-breaking, etc. An interview with a representative of traditional medicine gives thought-provoking insights into practices which exist along with modern diagnosis and treatment. There is no overall structured programme for the early detection of handicaps and their treatment. However, the national policy programme of education states that it is an objective of special education "to give concrete meaning to the idea of equalizing educational opportunities for all children, their physical, mental and emotional disabilities notwithstanding". At various hospitals and clinics prevention is part of the general health programme. A few hospitals and institutions of child health also report the screening of infants and children, but much more is evidently needed, as witnessed by the list of recommendations that concludes the Nigerian report. Among desired actions are mentioned: birth registration, assessment and treatment centres at the pediatric departments, training and upgrading of home visitors, and programmes for handicapped pre-school children. The responsibility for this development falls mainly on state and federal authorities, but contributions from voluntary organizations are also much needed.

Sri Lanka. This country has a long tradition of humanitarian concern which creates a favourable climate for the care of the handicapped, although material resources are still too scarce to satisfy needs. A major document is the Parents' Charter which states that "Parents have the right to be informed immediately of any physical or mental weakness of the child ... as well as to have the handicapped and the backward admitted to schools or special institutions where occupational opportunities are provided for them ...".

Since the independence of Sri Lanka, successive steps have been taken to develop a special education system. The initiatives so far have been more of a curative than of a preventive character. The paper emphasizes the desirability of integrating these functions. Procedures for early detection and intervention are most developed in the field of visual handicaps. The first stage of the open education programme for visually handicapped children comprises the collection of data about handicapped children and available educational facilities. These data are gathered through regional and local offices. In the second stage the data collected are used for establishing a programme of diagnosis and intervention by a team of special educators, a psychologist, and an eye-surgeon or an optometrist. Children of school age are enrolled in schools close to their homes and pre-school children and their parents receive home counselling. For the latter children the teacher works on an itinerant schedule. For other categories of handicapped children, such as hearing impaired and mentally retarded, a similar model is followed, although the procedures are as yet less developed than for the visually handicapped.

Among recommended actions is mentioned the need for a registration system. Up to now, survey data have been derived from estimates based on percentage figures from the United States of America and the United Kingdom. Another field for further action concerns information and education on handicaps. It is emphasized that the purposes of spreading information and creating awareness should be built into action programmes in order to make this knowledge available also to families who are not directly reached by the programme.

Thailand. To begin with, the report points out a number of factors in a changing society which contribute to the creation of handicaps in addition to factors previously known as handicap causes. Some of these causal factors are juvenile promiscuity, leading to more children being unsuccessfully aborted and born disabled; environmental pollution; and lack of control over the purchase of drugs.

The report is based on a questionnaire submitted to a number of health agencies in Bangkok. The responses showed that the medical and health institutions which were contacted had services and treatment programmes, staff training programmes to which to some extent persons from outside departments were admitted, and various information activities. However, the programme descriptions do not give any concrete information on procedures being used. As reflected in the answers to the questionnaire, special education activities seem to be less developed than the medical aspects. Some institutions are, however, planning educational services programmes and also training programmes for students who intend to work with handicapped children.

Existing assistance services for handicapped children are of different kinds: remedial, welfare and rehabilitation, both residential and day-care. Some agencies offer services to families, some only to the handicapped child. Dissemination of information about handicap problems takes various forms, such as pamphlets, newspaper articles, slides and films, exhibitions, lectures, panel discussions and training courses in remedial treatment. More specifically, the institutions responding to the questionnaire mentioned instructional programmes for the prevention of disabilities, preconception care, post-natal care and training courses for parents.

Under the National Education Scheme, which establishes the right of handicapped children to receive education, special education programmes are offered to different categories of handicapped children. Since most of these programmes require that the children concerned have reached school age, their early intervention role is limited.

United Kingdom. There has been growing concern for young handicapped children in the United Kingdom in recent years, as reflected *inter alia* by the Warnock report. There has also been a shift in emphasis, from medical dominance to greater attention to the social aspects of treatment and support. This development also implies a stronger belief in people's ability to solve their own problems if given proper help. Another present-day feature is to regard "handicap" (as distinct from "disability") as a relative concept. Disability need not necessarily lead to a noticeable handicap; on the other hand, a child who has no original physical, sensory or cognitive deficiency may live in a disadvantaged environment which prevents him from making full use of his potentialities and thus makes him socially handicapped.

Extensive research during recent decades has revealed many important factors behind the origin of handicap and this knowledge is now being used for preventive purposes, e.g. by vaccination, genetic counselling and analysis of amniotic fluid. The efficiency of prevention depends upon early and regular attendance of expectant mothers at ante-natal clinics. This condition has proved difficult to fulfil with regard to many women, particularly among the poorer and unskilled groups of the community. Another difficulty is met at a later period of parenthood by the "cycle of deprivation", i.e. the tendency of young people who were themselves brought up in poor conditions to rear their own children in the same conditions and thus make socially produced handicaps self-perpetuating.

The first line of prevention is considered to be the education of young people, who are future parents. New initiatives along these lines include courses on child development in secondary schools and courses of community studies involving field-service tasks to help handicapped children. A next step in education for parenthood is taken with young women expecting their first child, through large-scale dissemination of handicap knowledge in conjunction with home visits by community midwives. One important facility for early intervention is a register of handicapped children who need special treatment and education. The handicap register, based on a total screening of the whole infant population, has tended to replace the often used "risk-register" of children who are assumed to be at risk because of pre-natal factors (e.g. maternal rubella, genetic factors) or peri-natal factors (e.g. anoxia, low birth weight).

There is a wide network of educational facilities for handicapped children. Some of these are organized from child development centres which have access to psychologists, teachers and social workers and offer assessment, support and placement possibilities to the parents. Some of the facilities are provided jointly with voluntary organizations. Activities organized by parents have grown in importance. The playgroups were not primarily established for handicapped children, but are now open to a proportion of disabled children. There is also a special kind of playgroup, the Opportunity Group, which brings children with and without disabilities together and gives support to parents. Toy-libraries play an important role, not only by providing the children with stimulating toys but also by offering educative activities and parent help. Support is also given to the parents of handicapped children in the form of financial help and temporary relief from the stress of continuous care tasks.

II. CASE-STUDIES

ARGENTINA
Ministry of Culture and Education
National Directorate of Special Education

Introduction

The information which we can provide concerning procedures for the early detection of handicaps in children and ways of making families and teachers aware of the problems of special education is undoubtedly of considerable practical importance and it reflects this country's growing awareness of the problems of the disabled person and his family. Future action is planned in this field.

Our intention is to present a general picture of the current situation and to disseminate this information with a view to the improvement of existing projects in the light of the different approaches adopted in other countries, and so that the Argentine experience may serve, in turn, as a contribution to projects in such countries.

For purposes of terminological consistency in this study, we use the term "early detection" in the sense of the means available to us for the earliest possible identification of handicaps.

The present situation

In Argentina, the early detection of handicaps has been dealt with in its manifold aspects by official and private organizations which have been tackling this problem through various services with responsibilities of a technical nature.

The action of these organizations has been supported by internal planning which became necessary in order to establish an effective relationship between the needs of the handicapped person and the institution.

In order to provide a clearer picture of the current situation in these organizations, a description of the relevant services is set out below, grouped according to the handicapped person's stage in life.

Current organization of early detection procedures in the Republic of Argentina

Because early detection does not exist as an organized service, but is approached by the institutions performing such tasks as a secondary objective, the results are consequently only partially effective and have not had very much impact in the social context.

No central organization has early detection as a prime objective; the professional staff responsible for such tasks base their work on general training that has a bearing on the special problem.

It is difficult to make any early detection of the number of mentally, physically and socially handicapped people in the population since a large number of these children come for neurological consultation only at pre-school or school age, depending on the social environment in which they live.

Severely mentally handicapped children, the blind, the deaf and those with severe brain damage are detected earlier by pediatricians, endocrinologists, psychiatrists, psychologists, audiologists, physiotherapists, parents or teachers, who are aware of the child's difficulties.

Likewise, many children are taken for consultation once primary schooling has been finished, because of problems aggravated by age, emotional disturbances or difficulties in adaptation.

The child's withdrawal from family and society is noticed by teachers and doctors. In order to supplement his own work, the neurologist inevitably has recourse to rehabilitation personnel and consultation with other specialists.

Prevention, diagnosis and guidance services in various areas

The prevention, diagnosis and guidance services concerned with medical, psychological, educational and social aspects, keep the public informed concerning the various problems (causes, prevention and care), provide care for the mother-to-be (before and after pregnancy), together with early diagnosis and medical, psychological and social guidance, etc., in all the stages of the life of handicapped children and their families.

COMPARATIVE TABLE OF SERVICES

Stage in life	Dissemination of information	Medical aid	Means of protection (laws - institutions)
Pre-natal	Guidance for parents through appropriate media	Medical analyses for prospective parents prior to marriage	Law 12,331 and Law 16,668
Pregnancy	Prophylaxis in regard to childbirth, Information on handicaps	Medical, kinesiological, psychological, social and nutritional care and analysis	Law of economic assistance, Family income, Law 18,017
Post-natal New-born child	Specific information on the problem	Medical care (infant care, pediatrics), Medical analyses	
Early years	Information on early neurological and sensory stimulation	Medical care	Crèches, family assistance through special centres
Pre-school stage	Guidance for parents through nursery schools or special centres, Speech therapy services, Early education schools from three years of age	Pediatrics, Ophthalmology, Ear, nose and throat care, Endocrinology, Psychiatry, Neurology, Odontology, Physiotherapy, Occupational therapy, Treatment of speech defects, psychology.	Welfare service aid, assistance for education, provision of canteens, holiday camps, day nurseries, boarding schools, special homes and child-care units, Special school subsidy, Law 20,262

These services are provided in various areas:

Welfare assistance

Through crèches, child welfare services, day nurseries, institutions for the disabled or handicapped, and for homeless children or those whose home environment is unsatisfactory.

Education

Services are provided through Infant Consultation Units:

Early education for the disabled,

Special education centres,

Schools attached to hospitals, welfare and health centres,

Home instruction for children who cannot attend school because of illness or disability,

Itinerant teams,

Health

Services are provided in:

General or specialized mental health centres,

Hospitals for children,

Centres for medical diagnosis,

Speech therapy centres,

Legal provisions

Measures concerning:

Legal guardianship,

Social welfare,

Information and education designed to create greater awareness of the problem among families and teachers

Parents come to the hospital service for consultation when they suspect that something is wrong with their child or, occasionally, are sent there by doctors who have detected the handicap. On admittance, the child is examined from the medical, neurological and psychological standpoints, all this information being essential in the task of determining maturity and age of development.

Guidance is given to parents in all cases, meetings being arranged to inform them of the results of each examination of the child, to indicate the basic points, to propose changes in the way the parents handle the child and to try and give them clear answers to all their questions and tell them of possible solutions.

The interview is generally private and in some cases can be spread over two or three sessions.

In early intervention in schools, consisting of the early stimulation and education of handicapped children, great importance is attached to the relationship with the child's parents, through continuous individual and/or group techniques. Parents are kept in contact with the various members of the interdisciplinary group, either for information on the activities of their children or in an attempt to channel the stresses which have arisen in the family group as a result of the problem affecting the child.

The plan of action for the handicapped child provides for development of awareness among parents using group methods in open classes, clubs, support groups or other social activities

carried out in the institution; such activities provide a clearer understanding of the pattern of the pupil's family life.

The teacher is given special individual guidance and periodically attends technical discussion meetings with the rest of the team.

How special education is provided - institutions and methods

The National Directorate of Special Education is responsible for the special instruction of mentally, physically and socially handicapped pupils.

Through its institutions, its role is to provide instruction for those children, young people and adults who, because of their individual situation or characteristics, may require the temporary or permanent provision of educational programmes, organizations and/or procedures and techniques which are different from those used at the various levels and in the various types of regular education, but from which they nevertheless stand to benefit.

Through its institutions the National Directorate of Special Education provides services for the early stimulation and education of those affected by different types of handicaps:

- (a) those with slight or moderate mental handicaps;
- (b) those with physical handicaps.

These special categories are catered for in different types of schools corresponding to these two main divisions. We shall analyse the objectives and resources of the establishments which provide these services.

(a) Those affected by slight or moderate mental handicaps

Specialized educational establishments undertake the early stimulation of the handicapped child in order to prepare him for the second phase of early education, which is entry into a pre-nursery special education group from the age of three.

On entry, the pupil's possibilities and development prospects are assessed in respect of mobility, communication and social adaptation.

In accordance with this evaluation, which is carried out by the interdisciplinary team, the pupil will either join the school or be transferred to another type of establishment more suited to his particular case.

Where the slightly or moderately mentally handicapped group is concerned, the Escuela de Educación Especial para Mágicos implements its educational objectives in two stages:

- (i) the Infant Consultation Unit, where neurological stimulation is carried out;
- (ii) the Day Unit, where exercises are carried out to develop general intelligence, the motor senses and behaviour patterns.

The activities of these units are based on the need for educational intervention to begin as early as possible in order to be effective in stimulating the child's development and in incorporating the family in co-ordinated and appropriate action for the child. An effort is also made to make parents feel that they are actually doing something to improve the condition of their children.

(b) Those with physical handicaps

In the special schools for the blind or partially sighted, the deaf or hard-of-hearing, a programme of early stimulation is organized by the Infant Consultation Unit.

The general objectives are the following:

achievement of the overall development of children who are blind, partially sighted, deaf or hard-of-hearing;

from birth, stimulation of: sensory and psycho-motor development; language; acquisition of hygiene and feeding habits; play activities; process of socialization to enable the child to adapt correctly to the family and community environment;

adjustment of parents to the special situation of the child and guidance in appropriate care.

The Infant Consultation Unit provides special education for children from birth until they have reached the level of development corresponding to three years of age.

This education is divided into two stages:

- (1) first stage: early neurological and sensory stimulation is carried out from birth, until the level of development corresponding to 18 months of age has been reached;
- (2) second stage: the necessary stimulation is carried out until the level of development corresponding to three years of age is attained.

Specific objectives of the first stage:

neurological development through the stimulus of sensory and motor activities;

stimulation of language in the partially sighted and the hard-of-hearing;

fostering the development of the personality through awareness of the body and its movements, stimulation of rhythmic motion and building up the processes of imitation;

counselling parents in the handling of the child through the interaction of the Infant Consultation Unit with the family.

Specific objectives of the second stage are:

stimulation of sensorimotor activities;

development of language and the child's possibilities of expression;

improvement and correction of posture through gestural imitation and strengthening of the notions of space, time and rhythm;

stimulation of hygiene and feeding habits;

helping to establish bowel control;

widening and perfecting of play activities;

improving the level of visual efficiency (for those with poor visual acuity);

achieving the adequate integration of the child within the environment, favouring the processes of communication, and consolidating ego-involvement in the relationship with parents and educators.

Fields of action

Within the fields covered by the educational action, particular attention is paid to the relationship between the school and the home by way of individual parent guidance and through talks and lectures organized by the schools' interdisciplinary teams for the purposes of establishing greater understanding by the family group of the special characteristics of the visually or aurally handicapped, and hence ensuring more appropriate handling of such children.

Plans drawn up by the Federal Board of Education of the Republic of Argentina

In the context of the plans established in our country concerning procedures for the early detection of handicapped children and ways of making families and teachers more aware of the problems of special education, reference may be made to the following paragraphs from the document submitted by the Standing Committee convened to discuss the theme "Adoption of a policy concerning special education and wider dissemination of information in regard to special schools" at the VIIIth Special Assembly of the Federal Board of Education, on 18 December 1978.

"In order to carry out effective educational action, there is a need for early detection and treatment of cases, and a follow-up procedure in respect of pupils in the period immediately following the end of schooling, for which purpose there should be co-ordinated action with other government sectors and the community, and the establishment of an officially regulated register.

Care for the special pupil calls for joint action by the family, the school and the community; plans should be drawn up for the wider dissemination of information through the various media with the object of creating community awareness of special education and promoting private action to support it."

To this end, the VIIIth Special Assembly of the Federal Board of Education recommends in items 8, 9 and 10:

"In each administrative area, the activities of the education sector should be co-ordinated with other government sectors and with community institutions with the object of ensuring: detection and registration of cases;

the establishment of adequate services for early care;

integration of the special student into the competitive and/or sheltered working environment."

"There should be systematic publicity through the press, television and the radio and the occasional use of the cinema, and meetings for the purpose of information and training concerning national policy in the field of special education, and educational action carried out in each administrative area, in accordance with the above-mentioned educational policy."

"Adequate provision for the Standing Committee, which is responsible for studying the subject, to pursue its work in accordance with the timetable which should be established to this end."

The information programme drawn up by the Standing Committee of the Federal Board of Education at meetings on 12 and 13 September 1978 recommends:

"Co-ordination of action in the education sector and supporting institutions with other government sectors with the aim of implementing action to promote special education in relation to:

prevention;

detection and registration of cases;

manpower training;

integration of the special student into the competitive and/or sheltered working environment";

participation by the family in special education."

"The dissemination of information through the press, television, radio, the cinema, meetings for information and training purposes and any other channels, concerning the policy adopted by the national authorities in the field of special education; and the educational action carried out by the special education services in accordance with that policy."

"The authorization of the implementation of the information programme by the corresponding technical bodies, as proposed for the mass communication media:

Press

Publication in the various large circulation regional and provincial newspapers of information on the aims of special education.

Monthly articles: in-depth discussion (leading articles) on the theme of special education.

Weekly articles on various specific aspects.

Daily articles: messages in logotype.

News about various activities of the special schools.

Brief reports on specific establishments within the particular areas covered by the press.

Information concerning the addresses of centres where the services are in operation.

Posters.

Guides or newsletters for parents.

Notices. Leaflets.

Subjects to be covered: the education of children attending special schools; early care.

Television

Short flashes: one-minute films with a brief commentary.

Interviews with specialists on the subject of special education, and also with educators and auxiliary personnel.

Radio

Information on the activities of special schools within the area covered by the transmitter.

Slogans and messages on the subject in order to increase community awareness.

Presentation in drama form of family conflicts concerning children who should be cared for in special schools, the solution to such conflicts being commented upon by one or more specialists.

Interviews with specialists and educators.

Programme series on specific themes; this material is subsequently published and made available to listeners on request.

Cinema

Films.

One-minute 35 mm films for screening during news or advertising spots on subjects relating to the problem.

Medium-length 16 mm films (between 20 and 30 minutes) giving more detailed information.

Meetings

Information:

for teachers in ordinary primary schools;

for the general public.

Training:

for teachers in regular primary schools in order to:

identify pupils who may require special attention;

understand the teaching work carried out in special schools;

for special education teachers as part of in-service training.

Other meetings: co-ordinated and organized along the most appropriate lines according to the category of participants:

seminars;

round tables;

symposia;

panels;

clubs;

talks and lectures;

special days;

congresses.

Visits to establishments.

Publications

On specific technical subjects concerning research, experiments, statistics, etc., in relation to special schools."

Proposals for the future

In all services care is provided for the mentally, physically and socially handicapped, but the uncoordinated and isolated nature of the action in most cases means that the efforts made do not achieve what might have been expected.

The overlapping of services in the fields of health, welfare and education increases still further the cost of caring for these patients, which is already in itself high enough.

It is proposed:

to centralize efforts and co-ordinate tasks at the level of each organization, and ensure the general application of the same criteria;

to create an awareness of the problem in the community so that it will play its part in providing care and attention and in subsequently following up cases, thus preventing the social exclusion and the unemployment of handicapped persons;

to create a larger number of nationally organized specialized services able to provide for the full care of handicapped persons, and thus to facilitate prevention, diagnosis and treatment of handicaps.

In areas where it is not possible to apply such measures it is proposed to create regional mobile teams which will carry out an on-the-spot assessment and make appropriate proposals for the subsequent setting up of such services.

CANADA
J. M. Bouchard

Preliminary remarks

It will give a clearer idea of how the services for handicapped children are organized if we start by pointing out that each Canadian province is responsible for the provision of health care, social services and education for its own population. Some of the costs of several services are shared jointly between the Federal Government and the provinces.

It is therefore difficult to give a detailed account of the development of the preventive and early care services in each of the ten Canadian provinces. We shall attempt instead to present an overall picture of the situation while providing a few examples of programmes to be found in one province or another. We shall not dwell, however, on a description of the traditional services which have been provided for a number of years for each category of handicap.

Our aim is to provide the reader with an overall view of the way these services are organized in Canada, particularly with regard to primary and secondary prevention, early care and information for the general public, members of the medical professions, and parents.

Introduction

Before looking at the situation as regards prevention, screening and early care for handicapped children in Canada, a brief review should be made of the major achievements of the last 20 years in the services provided for handicapped or maladjusted children in this country.

Until 1960, most handicapped children lived in institutions. A certain number, however, lived at home although their families never received assistance or support of any kind for them. Very few handicapped children of school age were ever admitted to normal school classes, and there was no education service for them adapted to their situation. Those who did not go to school stayed within their family circle. The vast majority of handicapped children were excluded from school. Only children who were deaf or blind were provided with specifically adapted teaching in certain institutions.

During the 1960s, each provincial government in Canada introduced specialized schooling for the various categories of handicapped children living at home. The network of specialized services was parallel to the normal school sector, and handicapped children attended special classes or schools. Of the children living in institutions, virtually none received any schooling; and at that time most families with handicapped children were still being advised to place them in an institution. The screening of handicapped or maladjusted children was undertaken largely for the purpose of classifying and labelling them for subsequent placing in special schools or institutions.

Scandinavian experience with the normalization and integration of handicapped people into the community is leading the Canadians to look again at the principles underlying the provision of social services to persons suffering hardship. Accordingly, each province is reshaping its policies to allow for the organization of integrated services for the handicapped at school and in the community. It has become more and more widely recognized that the handicapped person has a fundamental right to live in his own family circle and to enjoy the services provided for the other citizens of his community, but adapted to his condition. During the 1970s, Canada adopted the philosophy of normalization⁽¹⁾ and the principles that stem from it regarding the provision of integrated services for handicapped or maladjusted people.

During that period, the Federal authorities and those in charge of services showed increasing concern about handicapped children and about the need for very early screening and the provision of assistance to families. Towards the end of the 1970s, we realized the crucial importance of the early years of life in the development of the human personality and the fact that providing specialized services to the handicapped person after the age of six can never make up for failure to provide the child and its family with such services before that age.

As the personal development of handicapped schoolchildren or adults can be said to have been only a partial success, those in charge of services have had to reassess their priorities for the deployment of resources with a view to providing care much earlier in the life of a child.

Looking back over what has been done during the last 20 years regarding services for handicapped children, we see that the various Canadian provinces undertook first of all to set up separate services alongside those provided for all the population and that, more recently, they

have begun to try to reintegrate handicapped children, not without difficulty, into the normal school population by allowing them as much as possible to share in the activities which are provided for all the children in the community.

It is against this specific historical background that we wish to describe the current stage of development of prevention services, screening and early care for handicapped children and their families in Canada. Part one will describe the various preventive and screening methods which have been applied to the child population in Canada, while part two will be devoted to the types of intervention, the programmes followed and the services available. We shall describe a number of experiments for training suitable staff for work with handicapped children and their families. We shall conclude with a survey of the methods used for informing the public in general and parents in particular of the importance of screening and early care.

Primary prevention

Before describing the various early detection techniques available, a word should be said about preventive measures.

The first field in which prevention and early detection were the subject of some concern was medicine, where doctors developed several means for preventing the diseases which can cause handicaps in children. They were also the first to develop methods for detecting the various diseases linked to certain handicaps.

For several years now, Canada has been able to boast of a network of health care services in which prevention and early detection are a continual concern of the medical teams in every community. The health service pyramid of general, specialized and even ultra-specialized care makes it possible to prevent a number of diseases and to detect circumstances in which the birth of a handicapped child may be very likely.

Preventive measures for all

Virtually all hospitals and community health departments give expectant mothers the opportunity of enrolling for ante-natal classes where they are given advice on the intra-uterine development of the child, on childbirth, and on the needs of the child when born. Information of this kind is usually provided by nurses, but a doctor may also contribute to certain classes. Classes such as these are increasingly widespread throughout Canada and available in both rural and urban areas.

The Ministry of Health or Social Services in each province provides the general public with concise information on customary precautions to be taken during pregnancy, childbirth and the early development of the child. This information also covers the particular kinds of care a newborn child needs and the facilities available to parents for the vaccination of their newborn child against certain diseases.

The provincial Government of Ontario, (2) for instance, has published a series of pamphlets on the need for regular medical check-ups during pregnancy, on the dangers of drugs, alcohol and smoking, on the need for a regular diet and on important points which the expectant mother should discuss with her doctor during pregnancy.

Nearly all Canadian provinces provide parents-to-be with information of this kind. In some instances, more detailed information is available for future parents, such as the publication entitled "Mothering your unborn baby" (3) which deals in far greater detail with the normal development of the foetus, pregnancy, childbirth and the feeding of a newborn child. This book, written by a doctor, tells the mother about the possible effects of drug-taking, smoking and certain medicines on her child's development. It also provides information on the possible after-effects of certain diseases, on the effects of radiation, on the incompatibility of certain blood groups and on the dangers of venereal disease.

In addition, several national or provincial associations for the parents of handicapped children have compiled information for the general public on the prevention of certain handicaps such as mental deficiency, cerebral paralysis, blindness and deafness. Part of this information is intended for parents and the public at large, but a large number of documents aim to give information to doctors and health workers generally and to those involved in the social services and education. The Canadian Association for the Mentally Retarded publishes a series of documents on the prevention of mental deficiency and on ways of ensuring that the newborn child develops in the best possible way. A pamphlet entitled "A better start in life" (4) provides mothers with a whole series of hints about preventive measures and early detection. To cater

for the needs of the French-speaking population, the Institut Québécois pour la Déficience Mentale has published a series of pamphlets in French on "Pregnancy", "Heredity", "The social environment" and the dangers to be avoided during pregnancy.(5) This information has been compiled specifically for French-speaking citizens in Quebec and other provinces.

Other associations have compiled information on the prevention of diseases which can cause certain physical, cerebral, visual or auditory handicaps. In addition, several pressure-groups are endeavouring to persuade the state to develop preventive measures. The Association de Paralyse Cérébrale du Québec, for instance, has just presented the Government of Quebec with its annual report entitled "Prevention is everybody's concern".(6) Some of the measures put forward in this report would seem to be of considerable interest to Canada and relatively new in the field of primary prevention. This parents' association recommends: "that the Ministry for Social Affairs in Quebec should provide pregnancy benefits on condition that medical examinations are undertaken regularly and that use is made of the health record book".(7) With the aim of securing the general provision of specialist ante-natal services, the association has called upon the Ministry for Social Affairs "to ensure that every area can offer specialist ante-natal facilities so that all pregnant women can receive the care they need".(8)

Some provinces, such as Ontario, have launched a public information campaign on television on the prevention of mental deficiency. This campaign aims to get the message across that the expectant mother who refrains from smoking, drinking alcohol and taking drugs during her pregnancy can considerably reduce the likelihood of giving birth to a mentally handicapped child.

On the subject of nutrition for the expectant mother as a factor in primary prevention, the Montreal Diet Dispensary, which is a research body, has carried out several surveys among working-class families to highlight the importance of the expectant mother's diet during pregnancy as a preventive measure against mental deficiency and other handicaps. The results of this research have led the state to introduce supplementary financial support programmes for expectant mothers drawing welfare benefit. Financial assistance of this kind varies between four and fifty dollars per month, depending on the province. The Canadian Institute of Child Health has published a study on the prevention of handicaps, (9) part of which deals with provincial nutrition programmes for pregnant women.

In general, there has been a concerted effort on the part of provincial governments, parents' associations and several other bodies to tell the public how to minimize the risk of expectant mothers giving birth to handicapped children. It should be stressed that this effort was initiated by voluntary organizations who were the first to concern themselves with the value of primary prevention and to bring pressure to bear on the state for the development of such services.

Medicine and primary prevention

As pointed out earlier, medicine was one of the first fields in which an active interest was shown in primary prevention during pregnancy. This was the sector in which the state first began to invest so as to reduce to an absolute minimum the risk of handicapped children being born.

High-risk pregnancies are therefore considered to be those among women under 17 and over 35 years of age, among those suffering from anaemia, diabetes, venereal disease or kidney infections, and among those who had German measles in adulthood or have Rhesus factor complications. In Quebec, expectant mothers in these circumstances undergo amniocentesis in the sixteenth week after their last period so as to determine the likelihood of their giving birth to a handicapped child.(10) Depending on the results, the expectant mother can then decide whether to continue with or terminate her pregnancy. Among the women whose pregnancy can be considered to have a high-risk factor are those who have the Down syndrome or who have parents suffering from mental deficiency, those who are physically handicapped or afflicted with hereditary deformity and those who have a case of mental deficiency in their family. This category of women also includes those who have had more than two miscarriages or have had a stillborn child.

Generally speaking, these women are referred to specialist care units on their doctor's recommendation. In addition, they are, or should be, sent for their confinement to a hospital having the staff and facilities for coping with any contingency. It must be remembered, however, that this type of specialist care is not always readily available to women who live in remote rural areas.

All expectant mothers in Canada are usually under the supervision of their family doctor throughout their pregnancy. Some women have to undergo more frequent medical examinations if their doctor can foresee the likelihood of complications with regard to intra-uterine development or confinement. In recent years, the general provision of health services has enabled all expectant mothers to receive appropriate medical care.

Secondary prevention

After birth, several measures are taken to detect certain anomalies in the child's development. These measures are, in the first instance, of a medical nature. Subsequently, the child is kept under observation through other paramedical means and by psychologists and teachers. We shall deal first of all with the various types of medical care applied immediately after birth and during infancy.

Screening, immunization and medical care

(a) Screening

Various early detection tests are carried out when the child is born or during the first few days after birth. These tests are designed to detect diseases such as phenylketonuria, hypothyroidism, and Tay-Sachs disease among others. Screening methods of this kind are used virtually throughout Canada.

Quebec has developed a provincial network for genetic medicine(11-12) which provides diagnosis at birth, given advice on genetic matters and offers treatment for over 30 different hereditary diseases. This service, which is subsidized by the Ministry for Social Affairs, is run by members of four faculties of medicine in Quebec. Each year, 80,000 newborn children are subjected, four to seven days after birth, to a test involving filter paper impregnated with capillary blood; this is to measure the rates of phenylalanine, tyrosine and tyroxin. Similarly, a filter paper is impregnated with a sample of urine taken 14 days after birth so as to detect certain anomalies. The results of blood tests and any tests revealing abnormality are checked by a second test. If the anomaly persists, the infant is then referred to one of the four university hospitals where a medical and paramedical team provides a diagnosis, treatment and follow-up. The provincial network for genetic medicine prescribes special diets, which are provided free of charge to the families by a central food bank. Periodic checks are subsequently conducted, with an emphasis on home care and regular visits to the community health centre.

It should be pointed out that this kind of genetic medical care is not available in all Canadian provinces. In some provinces, care is limited to the phenylketonuria test and to the prescription of an appropriate diet for this complaint. However, none of the Canadian provinces actually meets the recommendation of the World Health Organization that there should be five genetics specialists for every million of the population.

Doctors also evaluate a newborn child's development by means of an Apgar's score which gives an accurate indication of the child's health on the basis of heart rate, respiration, skin colouring, muscular tone and reflex irritability. An examination of this kind ensures immediate detection of certain anomalies in the newborn child. Some doctors also have the possibility of using the Denver developmental screening test(13) which gives an index of the child's development and detects certain anomalies.

(b) Immunization

The logical outcome of these various measures is to immunize the child against a number of diseases. Each province has a programme of vaccination against infectious diseases, and vaccination is used against the following: tetanus, diphtheria, whooping-cough, measles, German measles, mumps and poliomyelitis or infantile paralysis. In some provinces, vaccination against tuberculosis is only provided when recommended by the doctor. The Canadian Institute of Child Health recently published a study entitled "Love is not enough"(14) on the situation in Canada regarding child immunization. After a survey of the various provincial programmes, the Institute reached the conclusion that Canada is one of the few countries which does not have a national immunization programme. It noted that there was a lack of suitable planning in the various programmes. A considerable number of Canadian children would thus seem not to be fully or properly immunized against some infectious diseases which can be fatal or can cause complications in their normal growth or development or even produce permanent handicaps. (15)

(c) Hospital services

When a child shows evidence of particular complications in his development or displays a physical or mental handicap, the parents can call on specialist medical or paramedical care services for children. These services are usually to be found in children's hospitals or in general hospitals with a child-care unit. Centres such as these are normally well equipped with specialist medical, paramedical, psychiatric, psychological and social care facilities. In addition to general medical units, these centres possess specialized units for neurology, pediatrics, psychiatry, occupational therapy, physiotherapy, audiology, and speech therapy suited to the needs of maladjusted and physically or mentally handicapped children. Parents of handicapped children can obtain care in the form of diagnosis and treatment in so far as they are actually able to attend the hospital. It has not yet become customary for doctors to provide certain types of home care, even in areas with a high population density. Only in exceptional and very special circumstances do parents receive any help with treatment.

For geographical reasons, handicapped children in remote areas can receive only a very few of the specialized services that their condition requires. Occasionally a family has to move nearer to an urban area to obtain some types of care which their handicapped child needs. It is therefore true to say that a handicapped child in Canada is more likely to receive specialized care if he or she lives in or near a large city.

It should also be stressed that except for the specialist care their child receives in hospital, parents are often left to their own devices. When we studied the problems of some 20 families each caring for a very young physically handicapped child, several parents expressed their distress at the lack of facilities in the home for helping them to continue the treatment suggested by the specialists at the hospital. (16).

Community health care

Every province has a network of community health services which are the front-line facilities catering for the needs of the local population in general. Some of these facilities are located in general hospitals, while others are in dispensaries, medical clinics or in local community service centres. Some form part of the school system. One of the very few home care services for children is provided by district nurses who visit young children at home.

It has been difficult in general to adapt these health services to the needs either of handicapped children or of their families. The children are often referred to specialized or even highly specialized care units within hospitals. This trend would suggest that within the front-line services, the problems and needs of handicapped children are not sufficiently well known for such children to be able to benefit fully from the facilities provided for other children in the community. In this instance, there is evidence of a certain segregation of handicapped children who, more often than not, are referred to specialized care units instead of receiving the care they need within their own environment.

Rehabilitation facilities

Parents who have a handicapped child may consult or be referred to a rehabilitation or reception centre. Until quite recently, these centres received and cared for moderately or severely handicapped children. At the present time, however, such children have more difficulty in gaining admission to these centres as the provincial authorities have accepted the principle of normalization and have recognized the right of the handicapped child to live in its natural environment.

This category of services provides mainly psychological and social care. In addition to psychologists and social workers, the centres usually have a staff of occupational therapists, physiotherapists, speech therapists and a considerable number of teachers who look after the daily activities of the various groups of children of school and pre-school age. The children referred to these services are usually examined and then have to follow a development programme. In some cases, the children are admitted as boarders, either temporarily or on an almost permanent basis.

It must be stressed that the institutional role of these facilities is tending to diminish more and more as far as handicapped children are concerned since the state, for financial and humanitarian reasons, wishes to avoid wherever possible the institutionalization of such children in reception centres.

With this in mind, the provincial authorities intend to expand family-oriented services since, for the handicapped child, the family is the most valuable asset. This development thus brings us to consider some assistance programmes.

Early care

We have for some years been in a position to see what harm it does to institutionalize a child at birth, and how important it is for the handicapped child to live within his own family circle. We have also come to recognize the need to provide such a child with suitable care facilities at the earliest possible age.

The American record

For a fuller comprehension of health care services for infants in Canada, attention should be drawn to a number of major projects which have been implemented in the United States in recent years for the benefit of underprivileged socio-cultural minorities and for the inhabitants of certain sparsely populated areas.

The poor academic achievement of children from underprivileged families has necessitated the development of complementary programmes for children of pre-school age. These programmes have led to a very varied range of services for four and five year olds.

A survey of the effects of these assistance programmes on child development has shown that their effectiveness is closely linked to parent involvement in the children's learning processes. In the light of these conclusions, Bronfenbrenner has pointed out that the family unit would seem to constitute the most efficient and economical framework for nurturing and assisting the development of children. Assistance is likely to be fruitless without parental participation; even if some positive results are achieved, they are likely to disappear when assistance comes to an end.(17) These studies were conducted on children who attended day-care centres, nurseries, kindergartens or nursery schools, and children who had been taught at home by a teacher, or by their parents assisted by a teacher.

It was also recognized by those in charge of Head Start projects that parents had a very significant role to play in the education and development of their child. They thus set up the Home Start programmes with the aim of helping parents to appreciate their child's needs and to assist them with the various learning and development activities to be undertaken with the child.(18) The Head Start programme thus became a national pilot programme which subsequently influenced the organization of child care services throughout Canada.

This was also the case with regard to the Portage programme(19) for more severely handicapped children of pre-school age. This type of programme is based on home-care services in which a teacher helps parents at home, preparing with them what they are to teach the handicapped child. This particular experiment is probably the most significant among the home-care services for more severely handicapped children. Home teaching methods as devised by the Portage project begin with a functional assessment of the child's development,(20) in which the parents play a part. The team responsible for this programme has set out in a guide a whole series of learning activities which correspond to the points in the functional assessment. This learning guide,(21) in which the various aims and activities are described on index cards, enables the teacher and parents to refer to certain specific activities in order to complement the corresponding stage in the development of the handicapped or severely handicapped child. The tailor-made teaching methods provided by this programme help parents to teach their child, and avoid labelling him or assigning him to any specific category of handicaps. The promoters of this programme have been more interested in the development of the child than in a diagnosis of his handicap. The Portage programme is exerting a definite influence on the organization of health care for handicapped children in Canada. We shall now describe a number of Canadian projects which are based on this educational approach of working with the family.

The Canadian record

The conclusions we have arrived at in Canada are virtually identical with those of Bronfenbrenner, who found that children of four to five years of age in working-class districts who have attended nursery school are in no way different from those who have stayed at home. Francine Bonnier-Tremblay, the author of the DEDAPAM(22) report, has pointed out that the renovation programme conducted in schools belonging to the Montreal Catholic Schools Commission should not have been aimed exclusively at children and teachers. In her view, "the most recent projects would seem to suggest that an excellent means of improving the way children are prepared for elementary education is to get parents to play a very active part in the

education which school provides for their children . . . The period from three to six years is the best time in the development of the child for arousing the interest of parents in the school and for securing their active co-operation". (23)

The conclusions reached in this report illustrate the kind of concern which exists in Canada today with regard to health care services for young children. It is more than likely that during the coming decade each province will draw inspiration from these experiments by devoting special attention to the organization of health care for children, and especially the handicapped. To illustrate the nature of these policies, we shall describe several projects which have been developed or which are being implemented in various Canadian provinces. We shall, naturally, concern ourselves essentially with those projects which would seem to have a particular impact on the organization of health care services for handicapped children within Canada itself.

Since 1967, the University of Saskatchewan and the Canadian Association for the Mentally Retarded have jointly developed a programme of health care for mentally deficient children. Under this programme, the Alvin Buckwold Centre(24) offers assistance to families with a mentally deficient child by making available to them the services of a peripatetic, multidisciplinary team of specialists whose aim is to provide the child and the family with various types of care, including diagnosis, treatment, readaptation and education. This project was a first attempt at directing the activities of the multidisciplinary team towards the family and at enabling families in rural areas to receive services in their own community.

In the early 1970s, the Canadian Association for the Mentally Retarded worked out a scheme for the organization of integrated community services for retarded people. The SERVCOM network(25) provides for the introduction of a range of community services for handicapped children and their families in which educational practice is based on the Portage project.

Two SERVCOM projects are currently being tried out in Canada. The first project is in progress in the Lethbridge area in Alberta(26), and the experiment is being financed jointly by the Federal Government, the Government of Alberta and the province's institutes for mental retardation. The north coast area of Quebec has been chosen for the second project.(27)

What is of particular significance in both these projects is the emphasis placed on meeting the needs of very young handicapped children and their families. In each project, home teaching services have been organized so as to avoid sending the child to a reception centre. In addition, the philosophy underlying these projects calls for normalization, integration and the maximum use of local community services and resources.(28) Parents' associations have been brought fully into the planning, running and supervision of these services.

Several provincial governments are taking an active interest in these experiments, which will lead to significant changes in the organization of health care for handicapped children. The family is now considered to be the foremost care centre for the child, providing continuity between the various specialized services. It has also become accepted that the community has voluntary facilities which can be complementary to those provided by professionals.

Other schemes are being set up by parents' associations, such as the "First Step" programme for very young retarded children, organized by the Montreal Association for the Mentally Retarded. Under this scheme, parents attend a centre once a week and the staff work with the child and its mother. Parents occasionally meet together to discuss their respective cases. The aim of the programme is to assist parents in their role as teachers of their child and to enable them to talk to others when things become difficult.

To get in touch with parents as early as possible after the birth of their child, parents of older handicapped children have devised a "parent-helper" scheme(30) for new parents who have just learnt that their child is suffering from the Down syndrome, for instance. More experienced parents inform the hospital authorities that they are ready to visit the new parents, if they so wish. The pediatric and social service units of the hospital co-operate with the "parent-helpers" group by referring the various cases of handicapped newborn children to them. Voluntary work of this kind is very important since support from parents who have already lived through a harrowing experience of this sort can prevent new parents from being overcome by despondency. In addition, action should be taken as early as possible to inform and comfort new parents in this predicament and thereby dissuade them from taking any hasty decision with regard to placing their child in a reception centre or with foster parents.

The Canadian Mental Health Association and the schools commissions in Quebec have jointly set up family life classes for parents and children. These classes give parents the opportunity of observing their child in a group of two to four year olds. Parents can then ask questions about

their child's behaviour, the way to bring him up, and methods of curbing certain kinds of undesirable behaviour in the child. The family life programme aims to provide preventive mental health care for the child and assistance to the parents.

After conducting a survey on the needs of families with handicapped children under five years of age, we set up a home action programme(31) to help parents in their role as teachers of their child. For this, we formed a group of 32 students training to become teachers at the University of Quebec in Montreal. These third-year students work on the project for a period of two consecutive semesters. Each student, instead of undertaking the customary teaching practice, works with two families who have handicapped children. This work is undertaken in collaboration with the multidisciplinary staff of the motor deficiency departments at the three children's hospitals in Montreal. As several of the students live in the suburbs of Montreal, we have been able to assist families living within a 90 km radius of the city. The philosophy underlying this project is that parents possess the qualities required for teaching their child, that the students are capable of helping them to prepare what their child has to learn, and that certain voluntary community facilities can be of considerable use to families.

The principal objective of this research project is to develop a human and community ecology in the services available to young children, in which advantage is taken of local facilities in order to satisfy the needs of families with a handicapped child. Experience gained over the last two years would suggest that the professionals have often underestimated the resources of the family environment, young people, the elderly and other age-groups in the community. Many families could have made use of these resources in order to lighten their frequently heavy and exhausting burden.

These few experiments in health care services for handicapped children and their families should not be considered as providing a complete picture of what is being done in Canada. There are many other projects which are based on a family-centred system of services, and mention could also be made of several systems of services available at reception centres, day-care centres or nursery schools for four and five year olds.

Services provided by the community

It is odd to observe that handicapped children are often not admitted to their local day-nurseries and have difficulty getting into nursery schools for normal four and five year olds. Even today, handicapped children are the victims of the kind of segregation which often forces parents' associations to set up parallel services. The situation seems to be rather similar to that which parents experienced a few years ago with regard to the integration of their children in the school system. Parents in some areas have had to set up pre-school facilities adapted to their children's needs. As far as we know, no province has so far adopted legislation making nurseries and nursery schools for four and five year olds open to all children. The extension of facilities of this kind has been encouraged but no priority has been given to handicapped children.

Several provincial governments have earmarked funds to enable handicapped children to attend day nurseries. In actual fact, this has proved to be quite ineffective in many instances as day nurseries have preferred to forgo special financial support rather than open their facilities to the handicapped.

The Quebec Ministry for Social Affairs has recently modified regulations with regard to nurseries so as to facilitate the admission of handicapped children.(32) The establishment of a new system of "foster families" should facilitate the integration of the handicapped child with normal children of his age-group. A "foster family"(33) will in fact be able to look after a handicapped child together with two or three normal children from the same neighbourhood. This arrangement is very similar to that provided by "child minders" in the United Kingdom.

The Canadian Government has also published a guide on the integration in day nurseries of children with special needs.(34) This sets out the main factors which must be taken into consideration when integrating handicapped children in day nurseries and conventional pre-school facilities, together with details of all the services available for the handicapped young.

Staff

One of the major obstacles to the inclusion of handicapped children in child care services arises from the lack of suitable training for staff. Even today, many training courses for staff in nurseries and nursery schools do not provide any theoretical or practical instruction concerning infantile maladjustment. The staff of day nurseries have usually received their education in a general or vocational school, while nursery school staff have normally had university level training.

Teachers in specialist institutions or reception centres have usually received a secondary or university education. Up to now, teachers have been trained first and foremost for work in an institutional framework and very few of them have been trained to work with parents in a home environment or to make use of local voluntary facilities for assisting families.

The challenge of the 1980s

The principal problems encountered in the organization of health care services for handicapped children have stemmed from difficulties in changing existing institutional patterns and from the reluctance and the possible misgivings of staff about working with parents and using local facilities.

In recent years, each Canadian province has developed its own institutionalized services for handicapped children, most of the institutions and reception centres being non-profit-making, although there are still a small number of profit-making establishments of this kind. Several provinces are interested in setting up integrated community services for handicapped children. However, as they must bear the considerable cost of institutions and reception centres, they have little money left in their development budgets for introducing new services for families with handicapped children.

Several institutions and reception centres have begun to offer a range of family services, the principles of which are almost diametrically opposed to the philosophy underlying institutionalized services. If we are not careful, facilities of this kind are in danger of being absorbed by institutions without the latter being able to observe the fundamental principles underlying home care. If these principles are to be applied, those in charge of the services will have to integrate the home care programme into the front-line community services rather than centralizing them in institutions or reception centres.

If the development of these home care services is to succeed, measures will also have to be taken for training new staff or for retraining staff currently working in institutions. As home care implies the recognition of parental aptitudes and the use of community facilities, it would be desirable to "deprofessionalize" the habits of the staff who have been trained to work in the specific context of an institution. This is probably one of the most important things to be done in the coming years. Considerable attention will also have to be devoted to the type of services offered to the public. These must be neither "over-professionalized" nor "over-specialized", so that parents and members of the community are made to feel at ease and made to feel that their contribution to the child and his family is a useful one.

Contrary to common practice in institutions and schools in recent years, we should endeavour to share more of our knowledge with parents and members of the community instead of keeping it a closely guarded secret, reserved for professionals alone. In this sharing of knowledge and experience, it is essential that the professionals who will be called upon to work with parents should be capable of communicating with them and making themselves clearly understood. In the past, professional terminology has all too often been quite incomprehensible to parents. If a kind of partnership is to be achieved with parents and full use made of community facilities, our educational approach must be "deprofessionalized" and made intelligible to all.

Information and training

Having taken a look at the current progress of care programmes with a view to proposing various guidelines for the next ten years, we shall devote the final part of this study to an examination of various information strategies for the general public, an assessment of current training received by staff who work with young children, and a description of a number of projects for informing and educating parents.

Informing and educating the public

In the first part of this study, we noted that the Federal and provincial governments, as well as several parents' associations, have launched information campaigns on the primary prevention of certain diseases causing handicaps among children. This information has been aimed at the general public and presented in the form of pamphlets, televised information campaigns and documents readily available to all members of the community.

One of the major shortcomings which we must attempt to make up for in the coming years is the lack of information for the younger generation, who are the parents of tomorrow. Very few provinces, if any, provide for any classes at secondary level on such subjects as preventive care and early screening, mental health, preparing to become parents and the various categories

of handicaps. In certain schools, however, students can occasionally learn about these things in lessons on ethics, religion or sexology.

Various experiments are being conducted abroad, and in the United Kingdom optional classes are provided for secondary school pupils on mental deficiency ("With us in mind")(35) and on the physically handicapped ("Physical handicap, a school and community kit").(36) Apart from informing young people, these classes aim to prepare them for voluntary work with handicapped people. We believe that this is an excellent way of making students more aware of the problems of people who are different from themselves. In fact, we can assert quite unequivocally that the mobilization of voluntary resources for the handicapped is probably one of the best ways of making students more sensitive to those groups of people who are less fortunate in terms of intellectual, physical or mental aptitudes.

A good example of a programme that is interesting and informative for secondary pupils is one that has been subsidized jointly by the Department for Health, Education and Welfare of the United States Education Bureau and the Indiana Department of Public Instruction: "Towards the prevention of mental retardation in the next generation: a health education curriculum: course of study - resource manual for junior and senior high school students".(37) The compilers of this course have provided the teaching and audio-visual materials needed for an understanding of the topic by the students. The various provincial ministries of education in Canada would do well to follow this model for the development of their own secondary school information programme on prevention. Sound strategies in the field of preventive care ought to be initiated at least at the secondary level of education.

Several voluntary parental associations have started public information programmes. The Canadian Association for the Mentally Retarded, for instance, has published a document for provincial and local associations on how to make the public more aware of the problems of mental retardation. One particular publication which can be quoted as an example is: "A good start in life: an action approach to public awareness about prevention of mental retardation".(38) Of course, other associations of parents of handicapped children also have their own information campaigns on certain specific handicaps.

Before concluding this survey of information campaigns, it should be pointed out that radio and television are playing an increasingly active part in informing the public. Over the last four or five years, there have been programmes giving the public more information about the problems of handicapped children, about the health care services available to the population and about the types of assistance which can be provided for the child and family.

Staff training

Given the significant changes which are taking place in Canadian society today with regard to the normalization and integration of the handicapped person in his or her natural environment, the training of staff to care for handicapped children is not necessarily a matter of specialist training. It reflects, above all, the need to make all health workers more aware of the difficulties facing the handicapped and more aware of ways of helping them and ensuring that they benefit at the earliest possible age from the services available to the community in general, beginning with their own families.

Indeed, the absence of this kind of awareness on the part of staff in day nurseries, general health care services and nursery schools makes it all the more difficult to integrate the handicapped child into the system of health care available for the whole population. A special effort will have to be made in the coming years to make the staff of general health care services more receptive to the needs of handicapped children and their families. Training courses in medical, paramedical and psychological care and social and educational work will need to be supplemented in the future with information about handicapped children, their problems and ways of coping with them. These patients should be considered, first and foremost, as normal children who need special care for their development. In this way, we could see to it that these children are more fully integrated into our society whereas now, on account of their differences, they are often referred to specialized care and thereby deprived of the presence and social patterns of other children in their age-group.

In comparison with other professions, medicine, due to the strategic role it plays in prevention, is a field in which information should be compiled and communicated systematically on the various preventive measures, categories of handicaps, the kind of co-operation to be developed with parents, and methods of psychological, social and educational care. Very few medical schools have any compulsory course to train all future doctors for the heavy responsibility of preventive and remedial care for families with handicapped children.

To make good this shortcoming, certain national parents' associations have been conducting a series of information campaigns for those professionals who have to deal with young parents or parents-to-be. The Canadian Association for the Mentally Retarded, with the collaboration of representatives of various professions, has prepared a pamphlet on the prevention of mental retardation.(39) In addition, it has been working jointly with a permanent study commission composed of doctors concerned with prevention. Other national associations, such as those for mental health or cerebral paralysis, have formed their own study groups on prevention in which doctors work together to see how better information about recent discoveries in this field can be provided for professionals or the public.

Regarding prevention in mental health care, it should be noted that the association "Health and Welfare Canada" recently published a complete issue of the magazine "Mental health in Canada" on primary prevention and the young child.(40)

Generally speaking, Canada has quite a large number of training programmes for staff specializing in the care of handicapped children. Several colleges and universities offer specialized courses for training teachers, educators and members of the paramedical and psycho-social professions. However, the courses will have to be altered and adapted to the new social role of these professionals who will have to go out of the school or institution and work in the family environment, especially when the handicapped child is of pre-school age.

One of the major difficulties to be overcome during the next few years will involve the modification of training programmes in the light of the new approach to integrated community services, and the retraining of staff whose initial training was for work in institutions or reception centres.

As regards specialized work with the maladjusted, every province today has too many workers specializing in the care of handicapped children. In several provinces, new graduates have considerable difficulty in finding a job on account of the fall in the birth rate and the significant decrease in development funds allocated to new services. This means that integrated community services are likely to start up as a result of the gradual redirection of staff from institutions and reception centres.

This is why we have to find new solutions as regards the retraining and further training of those professionals who are unfamiliar with patterns of family and community care. The support programmes in colleges and universities ought to be modified so as to encourage this specialized staff to come to grips with the situations families actually have to face and to prepare them for using the resources of parents and community alike in their work with the handicapped child.

The training of parents

It is interesting to note that many Canadian parents have claimed their right to training by requesting that the adult education department of their local education authority should run courses on child development, handicapped children and pre-school education. Over the last decade, this type of education has developed considerably.

Throughout Canada, these adult education departments, in co-operation with provincial or local associations for parents of handicapped children, have been able to set up courses on maladjustment, mental retardation and cerebral paralysis. The cost of these courses is borne by the local education authorities.

To assist local education authorities, the Adult Education Department of the Ministry of Education of Quebec has devised a complete course entitled "Maladjustment concerns us all". It comprises 12 sessions centred on prevention and early screening, normalization, integrated community services and the use of local resources. Other provinces are probably able to provide parents with a similar service.

These courses generally involve discussions among a group of parents in which everyone has an opportunity to speak and voice his opinions. In some cases, the parents themselves chair the discussions. A professional health worker may, at their request, be invited to attend these sessions and speak to them on a subject of their choice.

Several parents' associations have set up information committees for families with handicapped children. Some associations provide parents with such services as stand-in care, day nurseries or special assistance in an emergency. It must be stressed that these associations are very conscious of the responsibility they have towards families deeply distressed at having a handicapped child to care for.

The Canadian Association for the Mentally Retarded issues an "Orientation manual on mental retardation", (41) covering new developments in care for the mentally retarded, which it makes available to parents, students, voluntary workers and sponsors. In addition to a brief history of mental retardation care, it sets out the principles underlying normalization, the rights of mentally retarded citizens, a definition of mental retardation, its causes and prevention, a description of integrated community services, and career opportunities in the field of mental retardation care. The second part is devoted more specifically to the personality of the mentally retarded person, his family circle, his job, leisure activities and the vital part played by the voluntary workers who assist him.

Canadian parents, therefore, have access to information in the form of discussion groups, courses or reading material. Parents' associations have made a substantial contribution by arranging courses and by calling upon local education authorities to provide information for all parents. These associations, through their activities, have also trained a considerable number of voluntary workers who bring whatever assistance they can to handicapped children and their families.

From this standpoint, the community system of remedial care developed by the parents' associations ought to influence us in our professional practice and gradually change existing patterns of services for handicapped children and their families.

Conclusion

After this very incomplete survey of the prevention and early screening services, the time has come to pick out the factors of significance for the future of prevention and early screening in Canada.

First and foremost, all secondary-school students ought to be taught certain basic notions regarding mental health and sexuality and be shown the part they will have to play as parents-to-be, the value of prevention and early screening and on the resources they have at their disposal for helping their fellow-citizens in need, whether they be the handicapped, the elderly or others.

Expectant mothers could be given a pregnancy allowance subject to regular medical examinations, the use of a health record book and enrolment for ante-natal classes. All women considered to have a high risk pregnancy ought to be entitled to special care while expecting their child and at childbirth. This would apply equally to women from a working-class environment where the problem of malnutrition is most acute.

Every Canadian province ought to set up a provincial genetic medicine service so as to detect as early as possible a number of diseases in newborn children. Canada must introduce a nationwide immunization programme so as to ensure that immunization is made compulsory for all children.

Health care services must be centred on the family unit, which constitutes the primary source of care for the child and ensures continuity between the various types of care.

If the handicapped child is to be integrated with normal children, information campaigns are necessary to overcome the reluctance of professionals working in general health care.

Where specialist staff are concerned, work with the family of the handicapped child and the use of local voluntary services are factors which will be of considerable significance in the new kinds of care to be developed.

Handicapped children should be given priority for admission to day nurseries and nursery schools. Parents and local facilities could co-operate in securing the integration of the handicapped child in his own age-group. Furthermore, due regard will have to be given, in the organization of health care services, to the community nature of health care programmes for young children.

Lastly, parents' associations should continue to bring pressure to bear on the state so that appropriate measures are taken to develop services which can contribute increasingly to normal family life. In addition, those responsible for organizing child health care services would do well to follow the integrated community pattern which has been evolved by many parents' associations throughout Canada.

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DENMARK
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Introduction

For several years ante-natal examinations have been conducted in Denmark with a view to early detection of handicaps.

Any expectant mother is entitled to free examinations by a doctor or a midwife that may tell her whether there are special circumstances connected with her pregnancy or delivery, including the risk of the expected child being born with a handicap.

General risk programmes for infants are not provided for by statute, but in several countries the social and health departments follow up children who are at risk of developing handicaps in order to prevent or limit the effects of retarded development during the first years of childhood.

In these counties the development of threatened children and others has been compared. Previously, examinations were performed by doctors, but other professional groups - for example school psychologists - are being involved in the work to an increasing extent. It is realized that measures to promote development usually call for educational aids.

Until now the children who have been referred to special educational assistance, including family guidance, have mainly been those who have impaired hearing or vision, or suffer from motor-handicaps. However, the mentally retarded also receive educational attention, and experience with early stimulation and training of sensory and bodily functions is good.

Certain physical handicaps, such as brain damage and bodily deformity, may be observed immediately when the child is born. Impaired vision and reduced hearing manifest themselves at a later time, depending on the degree of the handicap.

Language and speech difficulties, perhaps organic in origin, are rarely observed until the child is two or three years old, when the expected linguistic development fails to take place.

Still later - at the age of three to five - some children show signs of late development or other psychic deviation. The causes are sometimes to be found in the situation before the birth, occasionally in defects or deficiencies in the child's years of growth.

Scope

At the time of starting school up to 5 per cent of all children have difficulties preventing them from following ordinary education.

National statistics are not available, and qualified offers of special educational assistance for infants are still so unevenly distributed among the 275 municipalities in Denmark that current information is not representative. It is expected that we will have a nationwide registration system some time during the 1980s, ensuring that all children entitled to special education will be offered adequate facilities. The quality of the special educational assistance depends in particular on the educational capacity in respect of school psychologists, especially qualified teachers and assistant staff. At present, there is a serious shortage of qualified staff.

Visiting field work depends particularly on parents, health visitors, doctors and others responsible for children. They must not only be attentive to the child's general development, but must observe specific aspects, such as language, hearing, vision and movement. Relations with others in the home or in the institution play a role as well. Retarded development does not have to be significant in order for the child's development to be considered threatened. The domestic background may be so weak that even small handicaps require educational or other assistance to the mother, often by way of financial aid or educational support.

It is estimated that the causes for referral to special educational assistance are broken down as follows:

Language difficulties	40.0 per cent
Reduced hearing	5.0 per cent
Impaired vision	0.5 per cent
Motor-handicaps	0.5 per cent

Generally retarded development	12,0 per cent
Mental disturbances	24,0 per cent
Threatened development	15,0 per cent
Parental wish for early start of schooling	3,0 per cent

Current provisions

The Primary and Lower Secondary School Act of 1975, as amended on 8 June 1978, contains provisions relating to special educational assistance, including the special education of children and young adults up to 18 years old who are in need of such education. The assistance is provided free of charge to the parents. There is an unconditional obligation on the part of local school authorities to implement necessary and adequate measures.

As early as in 1969 the Danish Parliament decided that this assistance should be provided in such a manner that the children may stay in their normal environment, where possible.

By special educational assistance are understood measures aimed at preventing, remedying or limiting the effects of handicaps.

The measures may comprise the education, stimulation and training of the child, advising and counselling parents and others who mind the child daily, as well as the supply of technical and educational aids, including suitable toys.

Integration may be promoted by changing buildings, arranging transport and providing treatment facilities, where this is possible and justified.

It is often necessary to involve physiotherapists, occupational therapists, doctors, psychologists and other back-up staff in the planning and implementation of special education. The individual effort may at times seem an isolated measure, but parental and expert assistance to the child is practically always co-ordinated.

Implementation of special educational assistance

Special educational assistance should begin as early as possible. This means that those who deal with the child must be aware of its difficulties and acquainted with the kind of help available and how to obtain it.

Some problems may be detected just by observing the children and their activities. Other problems manifest themselves only after exhaustive examinations. Special equipment and inter-disciplinary co-operation are frequently required to carry the examinations through.

Problems of a social and psychic nature reveal themselves when the child attains an age when his surroundings make demands and when his knowledge and skills can be compared with those common in his age-group.

Parents, health visitors, registered child minders, general practitioners, staff at day institutions and others with whom the child is in direct contact, have good possibilities of observing handicaps or signs of retarded development in the child. It is important, however, to provide information on what to observe in the child, and names and addresses of those giving assistance. This may be done through basic educational courses, leisure time education, courses for parents and study circles, as well as informative material supplied to young parents and pupils in their final year in primary and lower secondary schools, and also through the media.

Special educational assistance is applied for through the educational-psychological service in the municipality in which the child lives. The service carries out the examinations required, and, if necessary, it makes proposals for measures and appoints a consultant to follow up the child and ensure the continuity of such measures. The child and its parents do not have their own way through the public institutions in their search for the assistance to which they are entitled.

The rapid development characteristic of infants, makes it necessary for the educational-psychological service continuously to follow up the development of the children they receive for special educational assistance. This is done for example through talks with parents, doctors and others who in their daily work have an opportunity of observing the child. Re-evaluation of the child's situation and the effect of the measures agreed upon are performed at least every six months and more frequently if circumstances so warrant, under the ministerial provisions.

In the light of these examinations and talks between the parties involved, steps are, where required, immediately taken to change the content and scope of the assistance in accordance with the circumstances observed.

In respect of the implementation of special educational assistance, any necessary changes are made by agreement, so far as possible, between parents and other key persons involved. In all cases measures are initiated on the basis of proposals from the educational-psychological service. The proposals should be considered as an offer to the parents, and coercion can only be applied if the child is neglected. These coercive provisions are surrounded by such ample opportunities of appeal and protection of parental rights that they are only rarely employed. Only in rare cases are the parents not anxious to co-operate, and there is such a wide knowledge of the possibility of obtaining support for handicapped infants that normally the parents themselves appear as the child's natural and best attorney.

When a child who receives special educational assistance reaches the age of commencement of schooling - either in a pre-school class or in the first form - the result of the assistance provided is evaluated and used as the basis for advice on the organization of the education. This is usually done by a "treatment meeting" between those who have been and are going to be responsible for the child. The child's first years at school are often organized as a continuation of the previous work. This may be effected by letting the same circle of persons support the child before as well as after the commencement of schooling.

The specially qualified teacher

Special educational work with infants requires substantial expertise among teachers and others responsible.

The specially qualified teacher must have a basic training and be experienced as a teacher of ordinary pupils in the age-group concerned. He must also have an all-round knowledge of possible forms of retarded development in early childhood and exhaustive specialist knowledge of the handicaps of the children he is to work with.

In addition to a basic training as a primary-school teacher or kindergarden teacher, the specially qualified teacher must have taken a supplementary course in special education lasting at least 18 months. The course is provided by the Royal Danish College of Education and its branches in the provinces. It includes studies in general special education for one and two terms, and a study of two of nine possible special handicap subjects.

The special subjects are: speech defects, poor sight, reduced hearing, motor-handicaps, slow reading, general difficulties of learning, mental retardation, behaviour problems and psychic disturbances.

The studies may be spread over an extended period of part-time study. Training as a specially qualified teacher is followed by short in-service training and further specialization. In this field there is an incipient co-operation between the Scandinavian countries.

Infants who are entitled to special educational assistance frequently also need other help. Co-operation between sectors and groups of professionals calls for mutual information, for example, knowledge of each other's special terminology. This co-operation on basic courses is in the planning phase.

Regular updating of information on the child's development, previous measures of assistance, and the child's overall situation should be co-ordinated between the departments and institutions involved, and this also brings supplementary training courses into focus.

Special fields

Under the Primary and Lower Secondary School Act, pre-school classes must be established at municipal schools and may be established at private schools. In private schools parents pay 15 per cent of the costs.

These classes make the time of starting school more flexible and bridge, in an excellent manner, home and school for the 5-7 year olds starting school. This is especially an advantage for the handicapped.

The pre-school classes are popular among parents. The maximum number of children per class is 20. If this number is exceeded, an assistant must be appointed. In that case the

maximum number of children per class is 28. The schools are normally open three hours a day, five days a week.

If any of the children in a pre-school class suffer from handicaps, educational-psychological service and special educational assistance must be offered to the child concerned, his parents and the personnel.

During the 1970s local authorities expanded the special educational service in respect of preventive and remedial measures at the pre-school age. A case in point is special education of the speech-handicapped, comprising about 2,500 children in pre-school classes and about 2,000 below that age. The latter figure will probably rise within the next few years.

Infants with language and speech difficulties

At present there are two speech institutes, of which one covers the Western and the other the Eastern part of the country. Local departments are established in each county.

These institutes provide instruction and treatment. Children with severe difficulties are admitted for observation for some weeks, and undergo educational-psychological and medical examinations. The period of observation may result in their being referred to a special kindergarten, but in most cases the institutes co-operate closely with the local kindergartens concerning the best possible conditions for linguistic stimulation. At intervals a speech teacher and speech consultant visit the kindergartens and instruct staff and parents, and sometimes they teach the children. In addition, courses are provided for pre-school teachers.

The speech institutes in Copenhagen and at Aarhus have special departments for children who are born with a cleft palate or other defects in the speech organs. These children receive comprehensive treatment beginning immediately after birth and continuing with surgical treatment, straightening of malformed teeth, and educational treatment until the best possible result has been obtained, functionally as well as cosmetically.

Infants with hearing handicaps

If a child suffers from reduced hearing it is essential for this handicap to be detected as early as possible so as to provide instruction and guidance, technical aids, and in short to support the child in its development.

The health visitor scheme, according to which all infants receive routine visits in their homes at intervals, is an important part of the visiting field work for these as well as other children who are thought to be particularly at risk of developing handicaps. Usually a hearing test is conducted when the child is six to nine months old. If the parents, health visitor or doctor suspect that the child suffers from impaired hearing it must be referred to a hearing clinic at the county hospital and perhaps to a clinic for educational examination and guidance. The child is usually observed for a period of eight to fourteen days, and remedial measures and family guidance are provided according to the degree of the handicap.

Irrespective of parental incomes, educational and technical services for handicapped children are free of charge for parents. The number of hearing-handicapped infants receiving educational support is about 1,000.

Visually handicapped infants

Until now infants suffering from severe defects of vision have received support and guidance from the Refsnaes School, which is a national central institution for blind and partially sighted children. Gradually the counties have appointed infant and sight consultants, and in the course of a few years this local service will create the basis for intensive service for this group of handicapped children.

About 500 infants are registered as partially sighted; of them about 200 are mentally retarded. About 100 children are blind. Most of the children live with their parents, who need comprehensive assistance and relief at intervals. When the child is three years old the support to the child is intensified in co-operation with the local kindergarten so that the visually handicapped children, where possible, may grow up among non-handicapped children.

The consultant is entrusted with the task of following up the situation of the child and the family and he must see to it that the family receives the assistance it is entitled to by law. Moreover, the consultant must show the parents how to stimulate the child with the things

available in the home, must propose suitable toys, and where required borrow such toys for the parents.

Once or twice a year the parents are offered a course of three to four days. Before partially sighted children start school they are invited to attend a school readiness test. Practically all blind children who are otherwise normal live with their parents. Upon request from parents, the Refsnaes School will admit children for a short or long period to observe them and take them off their parents' hands.

Motor-handicapped infants

Motor-handicapped children may need home help service and allowances. Few infants cannot stay in their homes even though the necessary financial and consultative assistance are provided. Transport and technical aids, including prostheses, are provided, and orthopaedic, physiotherapeutic and other special treatment is given when required.

Mentally retarded infants

Mentally retarded children are entitled to be admitted to a special kindergarten. The first special kindergarten was established in 1956. Now we have 51 kindergartens of this type with about 1,000 places, but during recent years ever more parents and experts prefer to use ordinary kindergartens.

There are four holiday and relief homes where mentally retarded children may stay for up to three months. Several children's homes are now able to offer special treatment.

The law orders the care service to instruct parents of mentally retarded children in respect of care, treatment and stimulation. The purpose is to create a life for the mentally retarded child and his parents which is as close to normal life as possible. The parents must be informed of the possibilities they have of obtaining assistance through the care service, hospital service and education.

If the mentally retarded child shows a tendency to psychotic behaviour special guidance may be required with a view to preventive measures and treatment.

It has been realized that education is essential to rehabilitation, irrespective of the nature of the handicap, but in particular where the child is psychically handicapped.

Social measures

Social measures for children are the responsibility of the social and health services operated by regional and local authorities.

The provisions on this subject are set forth in the Social Services Act of 1974 as amended on 8 June 1978. This amendment marks the termination of many years' work on transferring social institutions from the state to local authorities and transferring all special educational assistance to the sphere of the Ministry of Education.

The Minister of Social Affairs lays down guidelines for social institutions for children and young people. The regional and local authorities are now responsible for providing the necessary number of places at these institutions, including facilities for leisure-time activities. The local authorities may fulfil this obligation by running these institutions themselves, by co-operating with other local or regional authorities, or by entering into agreements with private institutions.

Statistics

The population of Denmark is five million. A birth year group comprises about 70,000 children. In 1977, 175,216 children of pre-school age were in day institutions, of whom 31,318 were in day care, 16,920 in day nurseries, 87,538 in kindergartens, 25,768 in recreation centres and 13,672 in age-integrated institutions.

On a national basis this gives a coverage for the 0-2 year olds of 21 per cent, and for the 3-6 year olds of 37 per cent. In addition to this, many children are minded by unregistered child-minders who are not subject to any educational supervision. They are therefore not included in the public statistics. The school system admitted 54,930 children into pre-school classes in 1977.

The number of social institutions varies from district to district, from zero in a few rural districts to 70-odd in Greater Copenhagen. It is planned to increase considerably the number of day institutions in the period 1978-1983.

The need for places at day institutions is related to the increasing number of housewives entering the labour market. Investigations show that 61 per cent of all married women aged 18 to 49, who have children of pre-school age, are employed in the private or public sector. In the decade from 1967 to 1977, 227,000 women entered the labour market. Most of these women work part time, but 60 per cent of their 0-6 year olds required care in 1975, and since then the number has risen sharply. To this should be added the number of children who need special education, without necessarily having a social need.

Apart from unregistered child-minders, the personnel employed in this sector in 1977 numbered 23,834. In day nurseries there are 32 employees for every 100 children, in kindergartens 15 and in recreation centres 12.

The government contributes 50 per cent towards payment of the running expenses after deduction of parents' payments, which amount to 35 per cent of the total expenses apart from real property costs, which are paid by the local authorities.

Parents with low incomes are granted free places for their children, and free places are also provided in special cases of social or special educational needs. The services provided for handicapped children are free, irrespective of the financial situation of the parents.

The social authorities will pay the salary of a support educationist for a physically, mentally or socially handicapped child if the staff of the institution is not able to cope with the task. The local authority pays these expenses, but receives a 50 per cent reimbursement from the county (government). At present 30 million dollars are spent for this purpose. The support educationist must not be confused with the support teacher, who belongs to the school system. Similarly, within the educational field individual support may be given to handicapped children, though with a considerable reduction in the numbers of weekly lessons.

Because of the local authority's responsibility for providing the necessary number of special educational opportunities as well as social educational arrangements for children of pre-school age, consideration has been given to expanding the co-operation with the educational sector, for example by using the same buildings and personnel.

Efforts to intensify co-operation between the social and educational sectors are strengthened by the desire for more emphasis on educational qualifications of the staff in the social sector. To this should be added the experience in recent years of providing early and qualified educational assistance to handicapped children or children particularly at risk of developing handicaps.

Institutions for infants house 30 children divided into groups according to age or into "family groups" consisting of children in various age brackets. There is one teacher for every three or four children. It is desired to create emotional and social contacts between the teacher and the individual child. Confidence is given high priority, and to this end teachers co-operate closely with parents. Very stringent hygienic rules are today superseded by educational views on psychically stimulating environments.

Kindergartens may be either part time or full time.

It is a declared political goal to offer all children places in kindergartens.

Until then, handicapped children are given priority. Consequently, 8 to 10 per cent of the children in kindergarten suffer from a physical or mental handicap. They are observed and discussed at least twice a year with doctors, psychologists and parents.

Preventive work among expectant and nursing mothers and infants⁽¹⁾

The principles relating to ante-natal and post-natal care for expectant and nursing mothers were laid down in an Act of 1945. Pursuant to this Act, general medical examination of expectant mothers by a doctor and a midwife was introduced. The Act was revised in 1972, and from then expectant mothers became entitled to five free medical examinations, two of them post-natal as well as to an unspecified number of preventive health examinations by a midwife (originally

(1) The account in this section is based on information from Professor Bengt Zachau-Christiansen, M.D.

seven consultations). Almost all expectant mothers accept the offer of the first medical examination, and approximately 80 per cent of them accept subsequent medical examinations. The fall must be seen in relation to the fact that some women have their examinations at a hospital. The same circumstance probably accounts for the fact that approximately 65-70 per cent of expectant mothers have made use of examinations by a midwife. Since the midwife service has come under the county authority alone, increasing efforts have been made - also through health visitors - to ensure that everybody undergoes medical examinations in the last stage of pregnancy.

The 1972 Act recommends that any woman who so wishes may have her child outside her home. In 1977 less than 1 per cent of confinements took place in the home. Seventy-five per cent of confinements took place in special obstetrical departments, and the rest in ordinary surgical departments and clinics.

In connection with the medical examinations, care and health courses during the ante-natal period are arranged; these courses are based on guidelines on ante-natal and post-natal care issued by the Medical and Health Board in 1976, as well as on the Leisure-Time Education Act; according to the latest statistics available, approximately 25 per cent of expectant mothers attend such courses.

A system to prevent children suffering from chromosome diseases and a number of hereditary metabolic disorders from being born is in the process of being built up, ensuring that tests of amniotic fluid can be performed early in pregnancy. In 1978 the Ministry of the Interior laid down the first national rules, according to which three advisory clinics are set up to begin with at the state training hospital and the Kennedy Institutet in the Greater Copenhagen area, and the Human-Genetic Institute at the University of Aarhus; analyses of chromosomes in the amniotic fluid are carried out at these clinics, and at the two former institutes tests to determine metabolic disorders are also performed - including tests of amniotic fluid as well as on babies. It is intended to expand the service, in particular by providing more laboratories for testing chromosomes. Analyses of amniotic fluid will be offered to all expectant mothers over 35, as well as to all who are found by the service to have a disease in the family endangering the unborn child; this includes children born with meningocoele.

In addition, the blood of all new-born babies is examined for Folling's disease at the state serum institute. Experiments on a national basis are at present being carried out to ensure an early diagnosis of cystic fibrosis in the first stools of the child.

After the child has been born, society provides health visitors and routine medical examinations of the child by the family doctor.

The first legislation concerning health visitors was introduced by the 1937 Act on the combating of sickness and mortality among children in their first year of life, and this Act offered ten visits to the child's home. It took many years before the arrangement covered the entire nation; after 25 years' operation it covered 75 per cent of the children in the country, as many rural municipalities in Jutland had not yet established health visitor schemes; gradually health visiting to cover growing needs was established.

In 1963 possibilities were opened up for health visitors to expand their work to cover the entire period of infancy. Only in 1973 did it become compulsory for local authorities to operate a health visiting scheme, and the principle of following up children with special needs after infancy was laid down in an Act; the result was that up to 15 per cent of families with infants have received visits by health visitors after the infancy stage, although recent examinations indicate that health visitors continue to aim at infants first and foremost. The health visiting schemes are popular - only 0.3 per cent of families do not take advantage of the services of the health visitor. Most health visitors also work in primary and lower secondary schools as school nurses.

Preventive medical examinations of children became statutory in 1946, and for more than 30 years nine preventive health examinations by the family doctor have been offered. The visits take place when children are five weeks, and five, ten and fifteen months old and two, three, four, five and six years. These offers have had the result that child health centres, which were introduced in this country in 1908, are as good as non-existent today, with the exception of the City of Copenhagen, where 22 per cent of routine medical examinations are carried out at child health centres. The routine medical examinations are used to an increasing extent; the total utilization in 1957/1958 was 58 per cent and in 1974/1975 81 per cent, when approximately 95 per cent of children were medically examined in their first year of life, with a drop to approximately 45 per cent at the age of six. At the routine medical examinations most Danish children are

vaccinated against whooping cough, diphtheria, tetanus and polio. Vaccination against tuberculosis is not offered until the children reach the age of compulsory school attendance.

A restructuring of routine medical examinations is currently being prepared. In 1978 the Medical and Health Board published a new instruction specifying the psycho-social aim of the examinations. An additional intensification of the work in the pre-school age may tend to concentrate on individual examinations, for instance of four year olds, as well as making examinations more interdisciplinary, so that they can contribute more towards detecting infants who are in special need of educational assistance before they reach the age of compulsory school attendance.

Dental inspection and treatment of children was introduced at the end of the last century. In 1936 25 per cent of the towns in the country had a school dental service; as late as 1966 only about 50 per cent of schoolchildren were offered school dental treatment. The Act on Dental Inspection and Treatment of Children, 1971, as amended in 1976, has opened possibilities for the school dental service to cover all children from the age of three, possibly two. Pedodontists want to become more involved in general preventive work on infants.

Co-operation in the social, educational and medical sectors

One of the guiding principles of educational legislation as well as social and health legislation is to prevent retarded development and to promote confidence and well-being.

Social legislation requires anybody who learns about cases of neglect or humiliating treatment of a child, or who knows that a child lives under conditions endangering its health or development, to notify the social committee in the local district.

The educational, social and medical sectors are each in their respective spheres responsible for providing qualitatively and quantitatively reasonable services to the population. Each of the three sectors is an adviser to the two others, and the legislation urges them to co-operate on measures for the handicapped. The starting-point is the sharing of clients and interests, and also the wish to make the most of common resources.

Structure

Co-operation between the educational and social sectors where children are concerned may be organized in various ways. A case in point is the Karlebo model, named after the municipality in which it was first put into practice.

Co-operation may take place at several levels. A permanent liaison body is composed of the senior officials of the education and culture department, the social and health department, and the educational-psychological service, which administratively is within the sphere of the education and culture department. The triumvirate decides on fundamental administrative questions and may submit recommendations to the political authorities. In cases of doubt the matter is decided by the committee on education and culture to which the educational-psychological service belongs.

Implementation of remedial measures which are not directly covered by the examiners' authority will be decided by heads of division. Usually, the head of the educational-psychological service participates in meetings between heads of division.

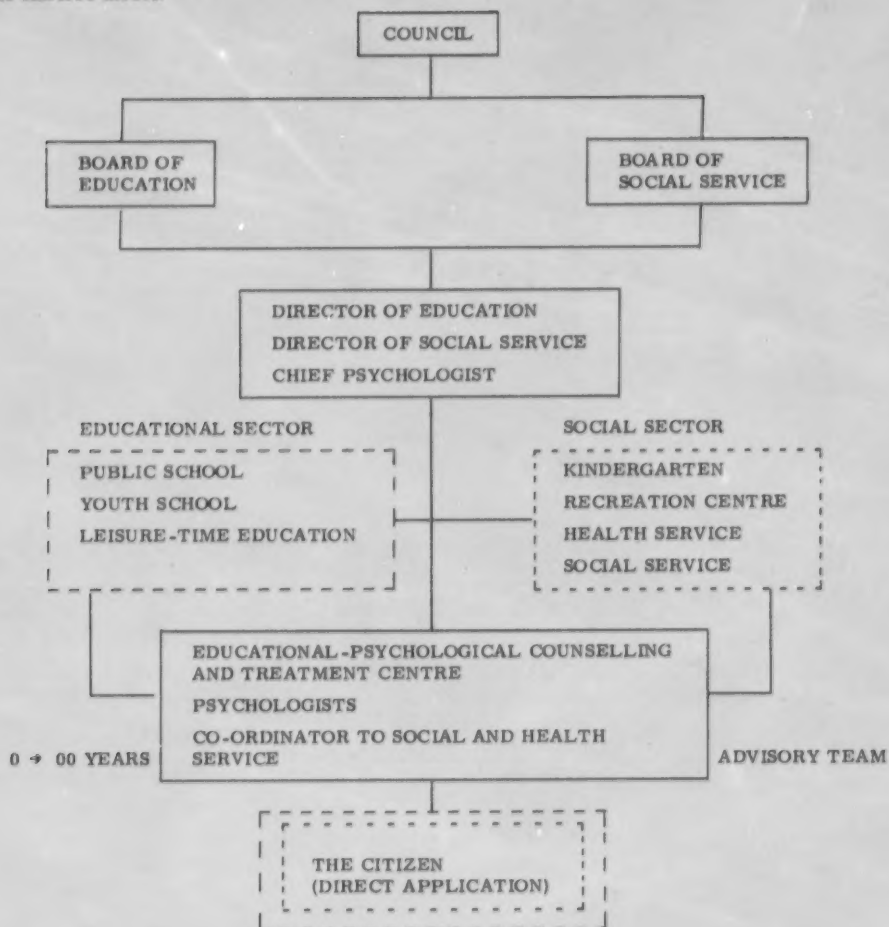
The general treatment of cases is discussed at meetings where anybody may participate who is able to contribute to solving the child's problems - psychologist, teacher, social worker, health visitor, social care officer, doctor, any other specialist, and, of course, the parents.

In all decisions importance must be attached to the parents' views and their choice between alternative solutions put forward by the educational-psychological service.

Meetings may be held where it is deemed expedient - at the school department, social department and the child's home or at the school psychological office, the district school, or a day or day-and-night institution.

The meetings make it possible to exchange views on the child's abilities and potentialities.

The Karlebo model:



Educational-psychological service

There are many approaches to special educational assistance. The most obvious one is for the parents themselves to apply to the educational-psychological service (school psychological office). The 275 municipalities in Denmark are served by 120 advisory offices. Small municipalities share an office. An office covering an area with about 5,000 children and young adults is typically staffed by:

one senior school psychologist
two educational psychologists
two clinical psychologists
one social worker
.....

part time:

one speech and hearing consultant
one consultant for the mentally retarded
one consultant for backward readers
one consultant for the emotionally and socially retarded

one counsellor connected with activities concerning backward school-leavers
one to three consultants for special classes
.....

one psychiatric consultant
.....

If a handicap group is too small for a municipal consultant to be appointed - for example the blind - the consultant is appointed by the county authorities to serve the local advisory offices.

In a few cases - for example the blind-deaf group - the consultant serves the whole country.

Parents may also approach the district school in the social department, the health visitor, their family doctor and the child's day institution or day-and-night institution. Recommendation of special educational assistance will then be sent by the person or institution concerned to the educational-psychological service.

Information to "users"

Information is best communicated through personal contacts between parents, staff of the institutions, and employees of the educational-psychological service. Parents' meetings and staff meetings may be part of such information activities. And it is also important to keep the political authorities informed, and to co-operate with organizations of handicapped people and staff organizations.

Parents are often most open to advice around the time of the birth of the child, the visits of the health visitor and the commencement of schooling. Leaflets and easily read literature are then useful.

Some parents are afraid of registration, the keeping of records, control and tutelage in connection with assistance from public authorities. A way to counteract this is openness. Where possible, the parents should have a say in decisions concerning their child. They should be informed of entries in records and, in particular, of information passed on to other authorities.

When a child leaves school or is discharged from an institution, all reports are returned to the educational-psychological service, and when schooling is terminated all files are destroyed if the parents so wish. Tact and caution must be displayed in respect of written reports. The parents should always know the name of the person having information about their child, and what information it is.

Increasing the number of advisers seems to lead to increasing difficulties of co-operation with parents. Therefore it is important that one specific contact person follows a child and is responsible for it. In Denmark, it is a tradition that the form master follows "his children" during the entire school sequence. Similarly, the same contact person from the educational-psychological service follows the child he is responsible for, irrespective of the changing measures and institutions involved. Thus, all handicapped children and their parents get a permanent adviser whom they may approach on matters of special education.

The health visitor possesses considerable knowledge of the infants in his or her district. The visiting field work is therefore based on intimate contacts between him or her and the educational-psychological service. Usually, joint meetings are held about specific as well as general matters. This activity may be extended to include general practitioners, lawyers, priests, dentists, registered child-minders and other "key persons". Experience disproves the assumption that the general practitioner has no time to spend on such interdisciplinary meetings.

Treatment

The first treatment of a case may involve the presence of parents at educational and psychological tests, their participation in deliberations, and the provision of guidance.

Anybody who in his daily work deals with the child, is, as far as possible, involved in the efforts to create an environment that will promote development. This is in particular important if the child is linguistically retarded and is past the most favourable time of acquiring language. Learning of concepts often begins with stimulation of sensory and motor-functions in the form of play that affects the child cognitively and linguistically.

As part of a treatment plan, the child may be admitted to a kindergarten, if necessary a special kindergarten which has attached to it, full or part time, a specially qualified teacher experienced in group work among language-retarded infants. The number of children in a special kindergarten must not exceed six. The children are normally taught three hours a day for five days a week in periods of three months. As they have been thoroughly examined - also by a speech and hearing consultant and an infant psychologist - before they start, the time may be used for a carefully planned stimulation and training programme. As children for special kindergartens come from a rather large area, they are transported by taxi or special bus, or they stay at Monday-Friday homes.

The most usual facility provided is ambulatory assistance from a consultant or specially qualified teacher. This enables attention to be focused on the child's strong points and, frequently, provides motivation for measures to be found in the environment, to a greater degree than by segregation.

As a result of efforts at integration, it is now common to place a support educationist at the disposal of the home or institution, which is thus enabled to care for a severely handicapped child. At present about 2,000 support educationists are engaged in this work.

Many five to six year olds do not possess a vocabulary which is up to the standard of their age-group. They display an uncertain understanding of language and form incomplete sentences. Besides having general language difficulties they may suffer from lisping, snuffling or hoarseness. These drawbacks require co-operation between dentist, school doctor and laryngologist.

It is always a strain for a child to have a defective voice function, but the inconveniences are especially great in respect of persistent stammering. Here interdisciplinary co-operation is often put to the test.

The Karlebo model⁽¹⁾

The EPS (Educational-Psychological Service) is a facility available to all children and young adults (up to about 20 years old) and their parents living in the municipality of Karlebo. There are nearly 18,000 inhabitants, and more than one in three is under 18 years old, so the age composition of the population is unusual for Denmark. There are only a few grandparents. Experience shows that a grandfather or grandmother may be important in satisfying a child's need for stable grown-up contact during childhood.

As the municipality has no industry and very few self-employed artisans the parents must go to Copenhagen or other towns to find employment. This means a long and often very tiring journey. Consequently, the family has very little spare time together.

There are some agricultural areas, and some families live in single-family houses with a garden, but mostly the new buildings are blocks of flats with occupiers of low social status.

The move to Karlebo often coincides with a family event, such as a divorce. Many parents are single.

The EPS is the local authority's free facility for those who are in need of educational (for example by speech and hearing teacher) and psychological (cognitive - emotional social development) examination, treatment and counselling.

The purpose of the EPS is to prevent or relieve social or other handicaps that may threaten a child's development.

In Denmark considerable interest has been attached to the examination of the conditions that may threaten a child's development.

General practitioners and psychologists have carried out research since the 1960s.

To sum up, one may say that it is very difficult to isolate the causal factors, be they social, economic or emotional.

When conditions which in general are considered harmful coincide, the probability of maladjustment increases and preventive measures are needed.

(1) This account has been prepared by Elizabeth Jacobsen, M.D., senior school psychologist.

Most of the families whose children's development is in danger cannot be identified by early observable characteristics.

Preventive efforts aimed at making contact with as many as possible of these threatened families are not designed to care for families with, for example, specific social or financial problems.

We shall not know for certain what children are at risk until one or several of the threatening conditions have caused a problem.

The preventive work must not be centred around certain aspects only of the child's development; it is necessary to make an integrated effort that comprises all aspects of the child's everyday life: home, kindergarten, school, recreation centre, etc. - the preventive work has to be extended to cover all childhood.

The EPS is an integral part of the facilities available to all children in the municipality - and perhaps the most important part of the work is the interdisciplinary co-ordination. The preventive aspect of this work is secured by formalized co-operation among those who follow the child while it is growing up.

The core in that work is the child and those who are part of the child's everyday life, mainly the parents, but also educationists, teachers, health visitors, etc. Around the child, interdisciplinary co-operation has been formalized between teachers in special education, psychologists, social workers, physicians, etc. These experts may be consulted for advice or action in connection with a child or family.

In addition, it is possible to co-ordinate many-sided assistance (social, psychological and medical). This is a way to make the child's daily life somatically, psychically and socially as safe as conceivable.

If necessary, it is possible to co-operate with or to consult hospitals, medical specialists, the care service of the handicapped, etc.

The EPS employs:

seven psychologists
four speech and hearing teachers
one educationist
one social worker
four secretaries
one child psychiatrist (part time).

The Director is a psychologist.

The EPS's work may be done at three levels:

- (1) a political level, by giving relevant information to politicians and administrators;
- (2) the institution level, by holding seminars for teachers in nurseries and kindergartens, for primary-school teachers, etc., or by participating in parents' meetings or study groups;
- (3) the individual level, by examining or giving treatment to a child and the parents if they accept it.

The treatment may be psychotherapy or special educational training.

Speech and hearing training may take place for example at the kindergarten or the school, often in co-operation with the teachers.

The child may visit the EPS office for speech and hearing training too, often with its mother or father, who continue the training in the home.

Examples of treatment by a psychologist are:

psychotherapy (individually or in families)
play therapy
advice on the upbringing of children.

Development work in practice (Example of an examination of the starting of schooling in a Danish borough with about 50,000 inhabitants)(1)

In a research and development project 87 children, born in 1971, have been followed from the school year 1977/1978 through educational observations and psychological functional tests. In addition the children's development from their birth has been described after exhaustive interviews with their parents.

The object was to examine what needs the primary school is to meet at the time when compulsory education commences, and which children need special attention with a view to identifying handicaps and educational-psychological assistance, whether the pre-school class per se is adequate for children or whether special educational assistance was required previously and was given.

Methodical division into experimental and control groups: the E-group comprises all children in the local district who were born in 1971, but who did not attend the pre-school class, in the school year 1977/1978 a total of 48. Of them 37 children were admitted to an ordinary kindergarten, and of the other 11, three were exclusively minded in the home, eight partly in the home and partly in a recreation centre. The C-group is composed of 39 children in two pre-school classes, selected statistically so as to make the parents' social group status correspond to the national social groups in Denmark.

Technique: in January and June 1978 two psychological functional tests were performed, and in May 1978 kindergarten teachers filled in an educational observation form. Both examinations included motor-ability in all its aspects, linguistic, impressive, perceptive and expressive functions, vocabulary, memory and learning of things seen and heard, development of concepts, ability to form associations, and social development. Moreover, parents were interviewed about the child's material conditions, family matters, development and problems, the practical situation of the family, the service provided by the local authority, parental considerations when choosing kindergarten (pre-school class) for their child, practical problems of starting school, as well as the parents' expectations of and attitudes to the school.

Practical implementation: the initiative came from the school psychological service. In the beginning psychological personnel were used, later on primary-school teachers and kindergarten teachers. To ensure exchange of information between the various sectors in the local district, a working party was set up, composed of representatives of the school system, the social service, the health service, politicians and administrators as well as representatives of the teachers.

Identification of problems: the E-group turned out to be the most handicapped group - for example 19 children had their commencement of schooling postponed and many needed special educational assistance. In 1978/1979 seven received such an assistance in the first form and the pre-school class respectively. The assistance consists of speech and language training, training in motor-co-ordination, and general stimulation.

The children came usually from a family with two children where the parents did not know how to cope with their role as educators. Offers of assistance are then required to secure a general, social development.

If parents are afraid that their child will be retarded in terms of development, they may ask the staff at the day institution or the family's health visitor to give their opinion. They may also approach their doctor, and only in one case (enuresis) was the social department contacted.

Referral to special educational assistance is characterized by much uncertainty in respect of children under the compulsory education age. The health sector knows too little about development problems in children.

The doctor may find support in pediatric departments, child psychiatric clinics, care institutions, speech and hearing institutes, or request the parents to wait and see.

Seventy per cent of the parents of the 87 children covered by the examination consider that the school psychological service should co-ordinate and be the one location which everybody may apply to for educational-psychological counselling in the local environment.

(1) This account is based on information from F. Bruntt, senior school psychologist, Fredericia, 1st partial report, 1979.

The conclusion is that the health services and the annual medical examinations should be supplemented with interdisciplinary counselling by the school psychological service (teachers, specially qualified teachers, social workers as well as educational and clinic psychologists) to ensure, in the local environment, early discovery of handicaps in children.

Early diagnosis takes place only in the most serious cases, where the doctor refers the child to hospitals or institutions, which have the drawback that they may be situated far away from the home. Previously, the school psychological service was not available to children under school age, but was as from 1 January 1980.

Early assistance is in particular provided for children suffering from physical handicaps. Usually, the parents report satisfactory results.

The primary object of the examination was not to intervene, but the results were used for giving advice about the starting of schooling on the basis of the child's situation in terms of development, and for implementing speech, language and other general, stimulating training as well as visual and motor-development.

In most cases the assistance should have been provided at an earlier stage, but that requires extensive co-operation and visiting field work in the local environment, which is now being developed.

Information about the need for early efforts

The project group has brought about exchange of views and information between the social, health and educational sectors.

An example of a change due to the project is that all children in a pre-school class may continue in a "social" kindergarten. Co-operation between the staff in the various sectors has been intensified and there are better possibilities of training, observation and early stimulation of children as well as counselling parents, primary-school teachers, kindergarten teachers and health staff.

The results have been communicated to parents, teachers and others in the local districts through the media and directly, as well as through evening courses.

Special educational assistance for language-retarded infants in a municipality in Greater Copenhagen⁽¹⁾

In the school year 1973/1974 the municipality of Glostrup (20,000 inhabitants) was able to offer special educational assistance from the school system to all children and young adults suffering from speech defects and impaired hearing.

Surveys of special education for schoolchildren in the period 1965-1972 showed that the age of children referred owing to language difficulties had constantly declined.

Education in this field had, until that time, been provided by the state, with the exception of speech instruction which Glostrup initiated in 1968 for children in the year before they started school. The age distribution of children receiving speech instruction was in 1972/1973: infants 55.8 per cent, first and second forms 22.9 per cent, third, fourth and fifth forms 17.3 per cent, sixth to tenth forms 4.2 per cent. These figures show the need for efforts at an early stage. The wish for such efforts was shared by staff at day institutions, and parents.

As the state was responsible for the special education of infants, an agreement had to be reached between the state Institute for Speech Disorders and the local authority concerning the organization of the work.

The scheme in the municipality of Glostrup was then established in 1972/1973 as an experiment with extended offers from the municipal school service of special educational assistance to infants. The local authority undertook the financial obligations in relation to this work.

The work was organized and headed by the speech and hearing consultant of the school psychological service.

(1) This account is based on information from Knud Hare, speech and hearing consultant of the school psychological service in Glostrup.

It was to be expected that most applications for special educational assistance would be submitted through the day institutions in the district, but the offer was to apply to all infants in the district. It was therefore necessary to inform others than the staff at the day institutions about the scheme, for example health visitors and general practitioners. Parents learnt about it through the local papers.

The authorities were kept informed about the work through annual reports.

The speech teachers visited the kindergartens according to a fixed weekly schedule, and the instruction was given there or in a few cases at the schools or at the pupil's home.

The visits in the kindergartens established intimate contacts between teachers and staff, permitting current exchange of information. Courses and meetings were held for the staff at the institutions, and the speech teachers offered to give lectures at parents' meetings.

When making their recommendations for speech instruction the speech teachers made anamnesis and conducted an educational-psychological examination. They worked out a report and proposed measures. In most cases the measures consisted of providing speech instruction, but other assistance could be given as well, for example, admittance to a kindergarten or arranging financial support from the social and health administration. In some cases a support educationist was made available, a social care officer who followed the child during some hours of the week to relieve the pressure on the parents. Medical aid was provided, sometimes from a specialist doctor. In case of hospitalization contacts were established with the ward in question. Special observation of children was desirable in a number of cases, and this observation was made in groups. This in a few cases led to children being adopted in an education group. Parents were in all cases exhaustively informed and counselled regarding the treatment of the speech disorder.

The relation between language and motor-functions turned out to be a problem. This has experimentally been solved by the appointment of a physiotherapist with a special insight into the relations between language and motor-functions. The physiotherapist's job is to assess the motor-development of the child and counsel parents and educational staff.

Moreover, the local authority has made provision for lending educational toys from the educational centre.

Handicapped infants may, upon referral, borrow toys, games, etc. that promote their development. The head of this particular service instructs parents as regards the function and application of the material.

After the introduction of the "infant scheme" in the municipality of Glostrup, 60 to 70 per cent of the referred children are infants. Some infants have overcome their speech disorders before they start at school, while in other cases it has been necessary to continue the speech instruction in the primary school as well. A few children have been referred to the centres of the county for special education.

It is essential that the speech teachers learn about speech-retarded infants before they start schooling so that the teachers will be able to offer advice in this period.

It is difficult to say exactly how much early measures increase the consumption of speech-educational manpower. In some cases the work is merely transferred, since the work done before the children start at school means less work during the period of schooling.

Usually, speech instruction begins when the child is three or four years old, but recently wishes for an even earlier start have been expressed. Several nurseries have applied for this. These wishes should not be rejected, but the work with such young children changes in character. The special educational assistance is more in the nature of advice than of traditional speech education. The toy lending system may play an important role in this respect.

JAMAICA

Part I - Problems of identification and education of handicapped children
in Jamaica

Ganga Persaud and Trevor Turner

Handicapped children in Jamaica suffer from more than their handicap. Their problem is often aggravated by late identification of their handicap or, depending on the severity of the handicap, inaccurate identification by parents and teachers. Nor do their problems end with proper identification, because, once past that hurdle, they have to face the situation of inadequate provisions to deal with their handicap. Provisions made by the government are grossly inadequate, as the government itself admits. A Ministry of Education report(1) pointed out that of some 40,000 handicapped children of school age, fewer than 1,500 were receiving help in special institutions. The government recognized that there were several factors accounting for this unsatisfactory situation, among them:

- lack of knowledge of the incidence and prevalence of handicapping conditions;
- inadequate procedures for diagnosing, prescribing, and placing children in suitable educational institutions;
- lack of co-ordination among government authorities and private agencies dealing with the handicapped;
- a tremendous shortage of teachers of the handicapped;
- inadequate space available for children needing special education.

Measures for the detection of handicaps: problems of detection vary with the nature and severity of the handicap and the type of school which the children attend. While there is little problem in recognizing obviously severe cases of speech, sight and hearing impairment, teachers and parents are not so quick in recognizing problems associated with emotional instability. Children in primary and all-age schools tend to suffer more than those in high schools in terms of early detection. Few schools are visited by health officers, except for dental care officers, who check for handicaps. Where this happens, visits are few and irregular. Most of the primary and all-age schools, therefore, depend on the untrained perception of the teacher to observe pupils and detect handicaps. The work of the teacher in this respect is made even more difficult because of the poor physical and working conditions of these schools. Where lighting is poor, it is difficult for the teacher to say if the failure of pupils to see writing on the chalkboard is due to poor light or to weak eyes. It is similarly difficult to identify hearing impairment or emotional disturbance among pupils in the context of large, cramped and noisy classes. At the secondary-school level, the problem of identification of the handicapped, while not satisfactory, is less difficult than at the lower levels. In the first place the children, being older, tend to recognize and express their difficulties in hearing and seeing more readily than younger students. Classes are generally smaller at this level and working conditions tend to be better than at the primary level; hence teachers can more easily spot students with physical or emotional difficulties. But of greater significance is the presence in many of these schools of a school nurse who can identify children with problems.

In addition to these difficulties in identifying handicaps among children, schools also indicated that their work in this area was hampered by lack of facilities and instruments that could help them to measure degrees of handicaps, and also by the ignorance of parents. This ignorance, the schools find, exists at all occupational levels, from labourers to high-level professional men and women. However, it is usually parents in the middle and upper income brackets who come forward most readily to inform the school of suspected handicaps in their children.

Handicaps are detected not only through schools but also through public clinics and through the watchfulness of doctors, nurses, social workers and the police. In addition, the children's hospital refers suspected cases of hearing impairment to the clinic run by the Jamaica Association for the Deaf. Parents also report cases of handicaps in their children directly to organizations that work with the handicapped.

The Jamaica Association for the Deaf provides a testing and diagnostic service through the schools. School principals are informed in advance of the visit of the JAD team. Usually two JAD officers conduct the testing. Schools are asked to list possible cases of hearing impaired

children, who are then tested by the JAD team. As many as 100 children a day can be tested under satisfactory conditions. This service is performed about four times a week during the school year, but with some 700 primary and all-age schools to be covered, JAD finds the work quite daunting with its limited staff. Parents have been found quite helpful in this exercise, though the poorer classes seem more interested than the richer in having their children examined for hearing handicaps. The rich tend to seek help abroad, while wealthier people in the Eastern Caribbean look to Jamaica for help for their children.

There is also a tendency for the more educated parent to more quickly label the hearing impaired child retarded and to show easier acceptance of visual handicaps in their children than of hearing impairment.

Nature of handicap: the Jamaican Ministry of Education, in a survey of a sample of handicapped children in schools in 1978, found that about 33 per cent were suffering from learning disabilities, 18 per cent were mentally retarded, 16 per cent were emotionally maladjusted, and the remaining 33 per cent were suffering from physical disabilities as follows: 13 per cent hearing impairment; 11 per cent visual defects; 8 per cent speech defects and 1 per cent muscular defects. (2)

An earlier Ministry of Education survey found that most of the handicapped were in the hearing impaired and mentally retarded categories. There was little difference between the number of girls and boys suffering from hearing handicaps, but a significantly greater number of boys than girls were enrolled in institutions serving the mentally retarded. Most of the hearing handicapped were in the age-group 9 to 14, while for the other categories of handicap the numbers were fairly evenly spread over the age-group 5 to 16 (see table 1).

Table 1
Number of students enrolled by age-group and sex
in institutions for the handicapped, 1975

Handicap type	Sex		Age in years				
			4-6	7-8	9-11	12-14	15-16
Visual	M	77	2	5	22	20	28
	F	53	6	6	15	16	10
Hearing	M	167	22	8	82	36	19
	F	183	31	16	90	42	14
Mental	M	266	27	50	102	67	20
	F	185	19	35	73	41	17
Physical	M	30	5	3	20	2	-
	F	43	13	8	20	2	-

Source: Jamaican Ministry of Education, Planning Unit, 1976.

Most of the handicapped pupils enrolled were suffering from moderate or severe handicaps. Among the visually handicapped, most were classified as blind, while among the hearing impaired the vast majority were classified as deaf (see table 2).

Table 2

Number of students enrolled in institutions for the handicapped
by age-group and degree of handicap, 1975

Handicap type	Degree of handicap	Age in years					Total
		4-6	7-8	9-11	12-14	15-16	
Visually handicapped	Blind	7	9	25	19	20	20
	Partially sighted	1	2	12	17	18	50
Hearing impaired	Deaf	41	20	135	60	28	284
	Hard of hearing	1	1	34	18	12	66
Mentally retarded	Slight	8	17	34	21	8	88
	Moderate	21	43	95	60	19	238
	Severe	16	25	42	27	10	120

Source: Jamaican Ministry of Education, Planning Unit, 1976.

The 1975 enrolment figures show that 1,004 were in institutions serving the handicapped. The number has not changed significantly since. Handicapped children and young people are enrolled in institutions as weekly boarders, term boarders or permanent boarders according to the severity of their handicap and whether they come from rural or urban areas. There is no residential service for those with learning disabilities.

Educational provisions for the handicapped: the education of handicapped children is mainly organized and managed by four voluntary agencies:

Mona Rehabilitation Centre for the Physically Handicapped;

Salvation Army for the Blind and Visually Handicapped;

Jamaica Association for the Deaf;

Jamaica Association for the Mentally Handicapped.

These agencies operate several schools, branches and units with financial support from the government.

In addition, the Christian Deaf Fellowship, the Jamaican Association for Children with Learning Disabilities, and some church missions such as the Jamaica Mennonite Church provide educational facilities without government support.

Provisions for the visually handicapped: educational provisions for the blind are offered largely in one institution run by the Salvation Army. It is located in Kingston and caters for persons who must be legally certified as blind. The Salvation Army also manages a small deaf/blind unit at the same location. This school for the blind has accommodation for 125 students, with another 19 provided for in the deaf/blind unit. In 1979, 123 blind students were in residence in the school. The Salvation Army sees the role of the school as helping to maximize the potential of the visually impaired in order that they may become independent and productive members of society. To achieve that goal it offers vocational training and counselling services. It has a staff of 50 full-time and three part-time workers.

Provisions for the hearing handicapped: the hearing impaired are better served than the blind in terms of educational institutions. The Jamaica Association for the Deaf manages four schools and two unit classes. These schools range from a pre-school centre for the 3 to 6 age-group to a senior school for the 10 to 18 age-group. Three of the schools and one unit class are located in the urban area of Kingston and St. Andrew, while the other unit class is 36 miles away in the town of May Pen. One school for ages 5-11 is located some 72 miles from Kingston

in the small town of Browns Town. In addition, the Association runs an early stimulation project in the parish of St. Catherine in which 82 children were enrolled in 1978.

In order to accommodate the numbers of hearing impaired who need access to educational services, the Association had to place its senior school, the Lister Mair Gilby School, and the Danny Williams School for the Deaf on a shift system. These shifts operate like the shift system in the regular school system, that is to say, from 7.30 a.m. to 12.30 p.m. and from 12.30 p.m. to 5.30 p.m.

Through these schools and classes the Association offers vocational and craft training as well as preparation for the overseas GCE ordinary level examinations and for the local Jamaica School Certificate examinations. The Association also offers counselling and welfare services to the handicapped children and helps in job placement, though this is done on an ad hoc basis. The Lister Mair Gilby School has its own school leavers programme, established in 1977, which provides work experience for senior students and helps in job placement for school leavers.

Also providing educational services for the deaf are the Christian Fellowship, with a centre in Kingston; the Caribbean Christian Centre for the Deaf, with its centre in the parish of Manchester; and the Jamaica Mennonite Church, which manages the Maranatha School for the Deaf in the parish of St. Elizabeth. In 1975 these institutions served 75, 70 and 11 students respectively. (3) They offer similar services to those provided by the Association. These include counselling, welfare, vocational and craft training and job placement.

Provisions for the mentally retarded: the Jamaica Association for the Mentally Handicapped maintains the School of Hope in Kingston for mentally retarded children. It also manages other smaller schools scattered throughout the country and several unit classes, largely located in the urban area of Kingston and St. Andrew. The unit classes are attached to infant or primary schools. The Association provides academic and vocational education and, where needed, occupational therapy.

Provisions for the physically handicapped: these provisions are offered almost entirely at the Mona Rehabilitation Centre owned by the Mona Polio Foundation and the Hope Valley Experimental School, which is a government school under the Ministry of Education. The Hope Valley School is an experiment in mainstreaming the physically handicapped. Most of the children are free from physical handicaps and all handicapped and non-handicapped follow the normal primary school curriculum. The school had 580 children enrolled in 1977, of whom 58 were handicapped. There were 35 at the Rehabilitation Centre. (4)

One thing that is apparent is the high concentration of educational services in the urban area of Kingston and St. Andrew, and conversely the inadequacy of services in rural areas. This is reflected in the geographical origins of the children who are cared for in institutions for the handicapped. More than half of such children come from the parishes of Kingston and St. Andrew.

The agencies providing educational services for the handicapped accept children over the entire school age range from kindergarten or pre-school to secondary, except for the mentally handicapped, for whom there is no provision for secondary education.

There were no visually handicapped children registered at the pre-school level in 1979, but there were three in 1974 and facilities and services exist for that age-group. Most of the mentally and hearing handicapped are non-residential or day students, only 166 of the 1,300 mentally handicapped being in residence.

Vocational training is the least developed of the educational services offered. Of the 1,838 children enrolled in institutions offering some form of education only 535 or about 29 per cent were receiving vocational training. Arts and crafts, home economics and woodworking were the most popular of the skill areas engaged in by the handicapped.

Parental support of programmes: interviews with teachers in the primary and all-age schools and their responses to questionnaires indicated that middle and higher income level parents tended to co-operate best with the schools. This is quite probably due to their greater control over the kind of financial and other resources that are needed by such programmes, although this does not mean that the lower income groups do not show interest and lend support. The schools have found, however, that there is still a problem of communication with most parents in terms of getting them to understand and fully appreciate the needs of the children.

The Salvation Army, in providing treatment for the blind, finds parents very concerned about their handicapped children and quite involved in activities for helping the blind. But parents

are inhibited in what help they can offer because of their own ignorance of the extent of the handicap in their children, their lack of skills in the area of treatment, and the amount of time that they can devote to help in treatment.

The majority of students at the pre-school centre managed by the Jamaica Association for the Deaf come from the lower income levels. Here too the teachers find parents very concerned about the treatment received by their children. The few parents from the higher income groups often show some reluctance to accept the fact that their child has a hearing loss and that something should be done about it. The centre gets about 50-60 per cent participation from parents in activities to help the children. Here again the lack of skills in parents prevent them from being more effective in helping the children. In addition, the poverty of the parents makes it difficult for them to provide the bus fares and lunch money for the children to attend the centre on a regular basis. This is further aggravated by the fact that many of the children come from single parent homes run by the mother alone. Severe strain is placed on such mothers in the low socio-economic category in maintaining the family economically and socially. As a result, the centre finds difficulty in getting the parents to follow up the work of the centre.

Teachers at the Lister Mair Gilby School, the school for older children run by the Association, find, as do teachers at the pre-school centre, that parents from the middle and higher income groups tend to have the greatest difficulty in accepting the fact that their children suffer from hearing impairment. At this level, general parental involvement in activities to help the handicapped pupils is even lower than at the pre-school level. Parents tend to have poor attitudes towards treatment activities. This could be a reflection of their ignorance of the extent of the handicap in their children and their feeling of helplessness when faced with the problem.

The weakness of parental support is paralleled by weak support from the generally community. The Salvation Army gets some of its financial aid from the local public, but generally the agencies helping the handicapped find that the community could do much more in providing financial aid and in participating in programmes for the handicapped. Part of this problem of public apathy stems from widespread ignorance of the extent and nature of handicaps in society and of the services that already exist to help the handicapped.

Provision of teachers: a major problem facing agencies dealing with the handicapped is that of providing specialist services. Overall, some of them manage to maintain a desirable student/teacher ratio of six or seven to one, but they are short of specialist teachers. In 1976-1977 the Salvation Army had 20 teachers for its 132 students, including 15 in its deaf/blind unit, but those 20 included only one mobility instructor, one craft specialist and one specialist for the deaf/blind; four were pre-trained and 13 trained teachers.⁽⁵⁾ The Jamaica Association for the Deaf Pre-School Centre had, for its 48 students in 1979, 11 staff members of whom four were specialist teachers of the deaf, including one foreign volunteer. The others consisted of one trained teacher, two teaching interns and four youth corps workers. The Lister Mair Gilby School for older children was somewhat better served with specialist and trained teachers. For its 160 children in 1979, it had 21 staff members comprising eight specialist teachers of the deaf, 12 trained teachers and one untrained teacher.

The Salvation Army considers its staff in the School for the Blind to be better qualified than ordinary teachers, but they need upgrading through staff development and in-service programmes. Most of its teachers receive in-service training in reading Braille. In addition, some staff members receive overseas training from the College of Teachers of the Blind, London, or from the Perkins School for the Blind in the United States of America.

Training for teachers of the deaf includes a well developed in-service programme run by the Jamaica Association for the Deaf. This programme helps to prepare teachers for the external diploma of the College of the British Association of Teachers of the Deaf through an 18-month course, and for entry to the one-year certificate course for teachers of the deaf offered at the University of the West Indies, Jamaica. Candidates for the diploma must be trained teachers working in schools for the deaf. There were six teachers in this programme in 1978 and three in 1979. This is a correspondence course under the supervision of a specialist teacher of the deaf. Formal training for teachers of the deaf is further provided at Mico Teachers' College in a three-year certificate course in special education. Students entering this programme must satisfy the usual requirements for entry to teachers' colleges in Jamaica; this means having a minimum of five passes in the Jamaica School Certificate examination and a pass in English Language in the General Certificate of Education examination. The College can accommodate 60 students in its special education course but this includes teachers of the physically handicapped and of the mentally retarded.

The School of Education of the University of the West Indies offers further professional training for teachers of the deaf in a one-year certificate of education course. To gain entry to this course, candidates must be certified teachers with at least three years teaching experience. The course can cater for ten students, but this is for all of the 14 territories contributing to the University. Jamaica had four students in this course in 1977-1978; six out of nine enrolled in 1978-1979 and seven out of ten in 1979-1980.

Teachers of the mentally handicapped are trained at the Mico Teachers' College and in monthly in-service workshops organized and conducted by the Jamaica Association for Mentally Handicapped Children. Candidates for the monthly workshops must be employed as teachers with the Association's School of Hope. There were 70 participants in the workshops in 1979. The Caribbean Institute for Mental Retardation also holds in-service workshops for teachers of the mentally retarded throughout the English-speaking West Indies.

The workshops conducted by CIMR cover such subjects as early detection and stimulation, prescriptive teaching, behaviour modification, total communication and vocational rehabilitation. Between 1976 and 1978, 13 such workshops were held in Jamaica. (6)

The Jamaican Association for Children with Learning Disabilities, while not providing formal training for teachers, sponsors seminars and workshops for teachers at its recently opened Resource Centre. This Association has also conducted a major workshop for teachers of private schools at which there were over 500 participants and has organized smaller workshops on specific problems concerned with the diagnosis and treatment of learning disabilities.

The Regional Pre-School Development Centre situated on the Mona, Jamaica, campus of the University of the West Indies offers some training in dealing with handicapped children along with the training it offers for teaching the non-handicapped. This Centre trains some 20 nursery assistants per year who have to be school leavers with a minimum of grade 11 education and must be at least 17 years of age. It also trains supervisors of pre-school centres or infant schools. These students should have had at least one year's experience as the supervisor of a centre before entering the training course. The centre trained 16 in 1977 and 35 in 1978. The majority, but not all, of students are Jamaican.

Government support for the education of the handicapped: the Government of Jamaica gives financial assistance to schools for the handicapped, including the Salvation Army School for the Blind, the Hope Valley School for the Physically Handicapped, schools and unit classes for the deaf, and the School of Hope and branches and unit classes for the mentally retarded. The government pays the teachers attached to these schools and gives each school a grant towards maintenance. An estimate of \$950,000 was made for government support of special education of the handicapped in 1976-1977, of which about 44 per cent went on salaries. This amount was increased to \$1,251,473 in 1977-1978, with about 46 per cent going towards salaries.

The government is spending, directly, less than 1 per cent on special schools for the handicapped. The expenditure on schools does not show, however, the total government effort for handicapped children, which also includes expenditure on the training of teachers in special education at Mico Teachers' College. In 1979, there were 25 students enrolled in this programme and it was costing the government approximately \$2,600 per student per year for their tuition and maintenance. (7) But even this additional \$65,000 spent by the government does not raise the percentage expenditure to 1 per cent. There is, accordingly, much room for improvement in the government's efforts in this area. The government is, however, aware of the gaps in its aid programme and recognizes the extent of the problem. It is aware that while "a small number of our handicapped youngsters are in institutions, others are sitting at home because parents are ignorant of their handicaps, reluctant to admit their existence, or unaware of where to seek help; or because these youngsters have no school programmes to pursue". It also recognizes that a number of handicapped children in schools go undetected because of the ignorance of teachers. (8)

In order to deal with this problem the government has set itself certain general objectives relating to the handicapped, among them the following:

1. to provide educational programmes that will develop cognitive, affective and psychomotor skills;
2. to assist in the development, implementation and co-ordination of outreach programmes that will foster positive attitudes on the part of parents, educators, students and the community towards the handicapped;

3. to make provision within the regular school system for those handicapped students who can benefit from this arrangement;
4. to assist communities in providing the facilities and personnel for instructional care for those who cannot otherwise be accommodated in the regular system;
5. to provide counselling services, specialized training and job placement for handicapped students;
6. to provide a cadre of trained personnel at all levels with a wide range of educational expertise to meet the special needs of the exceptional child.

As part of the programme to achieve these objectives the government has endorsed the principle of integrating, wherever appropriate, the education of the handicapped with that of the non-handicapped. As a corollary to this, the government hopes to encourage institutions which offer residential and specialized services for the handicapped to confine their services to those suffering from multiple and severe handicaps. It also intends to persuade teacher-training institutions to add a "special education for the handicapped" component to their programmes. The government further recognizes that it has to accept greater responsibility for the education of the handicapped and will have to define more clearly the working relationship between itself and the organizations currently serving the handicapped. (10)

Needs and priorities: one important area for improvement agreed on by everyone concerned with the treatment of handicapped children is public education. This has four components: prevention, identification of handicap, acceptance, and involvement in helping programmes.

Prevention affects mainly those who are likely to give birth to deaf children. It is estimated that 80 per cent of the deaf children in Jamaica were born of mothers who contracted rubella. Many of these mothers had been warned not to become pregnant while suffering from the disease but refused to accept the warning, while others were simply ignorant of the relationship between rubella in women and deafness in their children. It is further estimated that the majority of the remaining deaf children are the result of in-breeding. There are certain groups in Western Jamaica who have traditionally practised inter-marriage or mating among close relatives, and these groups are known to have a high incidence of deafness; yet the practice continues. It is hoped that if a programme of appropriate public education can reach these people the incidence of deafness will fall dramatically.

It is generally agreed that the early treatment of the handicapped child is made difficult by the problem of identification of the handicap. Deafness in early infancy, for example, is not easily detected unless the parents know that the child was born at risk, as in the case of the rubella victims. But here only an effective programme of public education can help the parents to identify handicaps because the formal school system does not address itself to these matters except in an occasional and superficial way.

The question of parental acceptance of a handicapped child is even more urgent than that of identification of handicaps. It often happens that the handicap is quickly and clearly identified but the parents are reluctant to accept the findings and its consequences. It has even been known that doctors sometimes refuse to reveal the full nature of the handicap to parents in order to spare their feelings, knowing that they may be reluctant to accept the child with its handicap.

Some agencies such as the Jamaica Association for Children with Learning Disabilities and the Caribbean Institute for Mental Retardation run seminars and workshops for both parents and teachers. These help in mobility training and in encouraging early stimulation to begin at home. But these are not enough. It has been suggested that much more use could be made of radio and television, especially in the area of prevention. Deafness due to malnutrition and to careless or excessive beating of children could be considerably reduced, it is felt, with a well developed programme reaching the people through the radio and television channels.

The educational needs that apply to the parents of the handicapped apply also to the wider community. In the situation such as it is in Jamaica, where the government is in a financially weak situation, the community could be expected to help to provide some of the services for itself and its children. But this is not happening in the case of the handicapped. Teachers in schools that work with the handicapped indicate poor attitudes on the part of the community. These attitudes range from a rejection of the handicapped to an acceptance of them, but reluctance to become involved in activities or to contribute to their care. Ignorance of the nature of handicaps and of the facilities that exist to care for the handicapped is even more pervasive in

the general community than among the parents. Here also the agencies see an urgent need for an education programme to inform and educate the public through the mass media.

The Salvation Army sees the need to establish closer links with the community through closer tie-ins with community health aides and with public health nurses. This agency keeps an open door to visiting groups as part of its public educational process, and brings the visually handicapped to the fore through public appearances of past and present students. In these ways it is hoped to keep the public constantly aware of the needs of the handicapped, but the agency admits that it does not have the resources to mount the extensive and continuous educational campaign necessary to ensure a high and constant level of public support. For this the agencies look to the government, especially as it has control over the two radio stations, the television station, and one of the two major print media in the country. Occasional hints are given on radio regarding attitudes to the handicapped, but these are too few to be effective. What is needed is a properly conceptualized and implemented programme reaching out to the public at frequent intervals.

With government support of government relatively weak and that of the public quite low it is not surprising that support services for the handicapped are in general underdeveloped. The agencies rate such services as hospital counselling and referral to institutions as poor, and in-home services as non-existent. Services for the deaf such as interpreting, and peripatetic services, are also poor.

The agencies are not very satisfied either with the level of facilities and equipment with which they have to work. Recently there have been some developments in their building programme. The Salvation Army furnished and equipped an audio room in 1977 with help from the Royal Commonwealth Society for the Blind and a games court for physical education classes and other activities, also with help from overseas. The Association for the Deaf added two new classrooms and a sanitary block to the Lister Mair Gilby School in 1977. But the agencies still lack important facilities to carry out their work effectively. The Association for the Deaf, for example, urgently needs a properly soundproofed audio testing room. The present one, housed in an old building, allows outside noises to intrude into the testing process. The Association also points to the problem of acquiring hearing aids for the partially hearing impaired. Most of the children whom the Association treats are from poor homes and cannot afford hearing aids. This increases the work-load of teachers of the deaf, who have to make up in their teaching and interpreting for this lack of vital equipment. The schools also need equipment such as Brailers and large print typewriters to help the visually impaired.

In addition to specialized facilities and equipment, there is also need for general facilities that can be shared by the agencies. One such is a library and resource centre that could be shared by teachers of the handicapped and the students themselves. Another facility that could be used in common by the agencies is a diagnostic/therapeutic centre. Either this centre or the library would have information available and organize educational programmes on the recognition and prevention of handicapping conditions.

While much useful work in preparing teachers of the handicapped is being done both in full-time and in-service programmes, the agencies feel that much more could be done in teacher training. They suggest that teacher training for the handicapped should be regarded as important enough to be set off from the regular teacher training programmes in the college. Teacher training for special education should, they think, be provided after the regular teacher training programme is completed. This would then allow the one-year certificate course in the teaching of the deaf offered at the University of the West Indies to be upgraded to the status of a graduate programme. Teacher training, it is felt, should also be broadened to include the teaching of the learning disabled. More use needs to be made of audio-visual aids in the training of teachers. The view has been put forward that a resource bank of suitable material could be developed and this would widen the amount of specialist resource material available. The use of audio-visual aids should be extended to include closed-circuit television and video taping; it is crucial to the proper treatment of the handicapped that teachers be always aware not only of the relationships that they establish but of the manner of their approach to the children, especially when dealing with the mentally retarded and emotionally disturbed. Video taping could give an immediate visual feedback to the teachers of the strengths and weaknesses in relational behaviour and approach and thus could be an extremely valuable tool in helping to shape the performance of the teachers. The involvement of parents in the training of teachers also needs to be stressed. The agencies maintain that teachers should be trained to establish regular contacts with parents. This should not only apply to teachers in special education but should also be the case with teachers in regular schools, because this would help the latter in the recognition and teaching of handicapped children in their schools. The regular teachers should also have as part of their normal training a component relating to the education of the handicapped, stressing techniques in diagnosis and in prescriptive teaching.

While concerned with the quality of teacher preparation for dealing with the handicapped, the agencies are also mindful of the need to increase the numbers of specially trained teachers. The desired teacher-student ratio for handicapped children is one to eight, but this is only achieved in Jamaica by including non-specialist teachers and in some cases untrained teachers and teacher aides. A strong case can be made therefore for increasing the numbers of specially trained teachers. This would not diminish the need for teacher aides and paraprofessionals in the area of education for the handicapped. A properly developed programme of education for handicapped children would require not only appropriate equipment and specialist teachers, but also a good supply of teacher aides to allow the intensive individualized attention so necessary with the handicapped. These aides and paraprofessionals would also require some training so as to influence positively their relationship with the children and to provide them with at least rudimentary skills in helping to treat handicaps and in the use and care of necessary equipment. Very little of this is being done at present in Jamaica. The agencies themselves have to provide orientation and in-service training of the youth corps workers who are assigned to them. These are young people who have just graduated from secondary schools and have had little or no contact with handicapped children and no training in their secondary-school programme for working with the handicapped.

The need for training is not only at the classroom level but also at the administrative and supervisory levels. It is thought that an administrators-managers course with emphasis on the operation of educational programmes for the handicapped could be organized and conducted by the School of Education, University of the West Indies. There is also the need for a government education officer with special responsibility for the supervision of the education of the handicapped; the government has been approached to provide such supervisory service and, on its part, recognizes the need for more adequate supervision. (12)

The financial constraints facing the Government of Jamaica and all educational institutions in the country at the present time are a major obstacle to the expansion of programmes to serve the handicapped. Nevertheless, greater efficiency could result from greater centralization and co-ordination of services. The training of teachers needs a co-ordinating body to help standardize the training being offered in the various in-service programmes. Some of the agencies also think that greater co-ordination would allow of increased sharing of resource personnel and more efficient use of the very scarce expertise in the education of the handicapped now available.

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The researchers are indebted to the following persons, among others, for providing much of the information needed for this report: Mrs Jeanne Robinson, Miss Suzanne Williams and Miss Hilary Sherlock of the Jamaica Association for the Deaf; Dr M.J. Thorburn of the Caribbean Institute of Mental Retardation; Mrs P. White, Principal of the Jamaica Association for the Deaf Pre-School Centre; and Miss Madge Hall, tutor in the teaching of the deaf at the School of Education, University of the West Indies.

Part II - Early detection and early stimulation of developmentally disabled children in Jamaica

M. J. Thorburn

It is generally recognized that early detection and early intervention are essential services for children with disabilities. Yet most developing countries, though they may invest in special education services, do not provide services for the pre-school age-group. There are a number of reasons for this, some of which are valid, others based on misconceptions. Some of the apparently more valid reasons include cost, lack of trained personnel or lack of an infrastructure or a system within which to develop such services. Patently less valid reasons include the conception that handicapped children are less entitled to services in a situation where services for normal children are limited; and that parents are ignorant and do not recognize the early deviation from normal development that may signal disability.

There are two major problems that afflict developing countries however, which stem from major misconceptions and which have hindered programme development. These are:

1. handicapped children grow into dependent and non-productive adults and developing countries should not waste precious resources on them; and
2. models of service and training handed down from developed countries (who supply the experts) require specialized, highly professionalized and elaborately equipped programmes that are costly. In fact, not only are they beyond the means of developing countries, it is now beginning to be recognized that they are beyond those of developed countries also!

Jamaica's initial efforts in the area of early detection and early stimulation for developmentally disabled children have attempted to develop strategies to meet the needs of more people at lower cost. They are based on the premise that workers with no previous training can be trained in the necessary skills, knowledge and attitudes required for this work and can operate effectively in their own communities - the model of the village health worker. These attempts have been made on a pilot basis so far and have not been replicated island-wide because of the economic situation. However, replications with some local variations have been commenced in two other Caribbean countries - Curacao and Haiti.

Early detection and early stimulation in Jamaica rightfully belong to the health infrastructure, as these services begin before the baby is born and continue until it is two years old. They can then be seen as part of the spectrum of prevention of disability. The early stimulation project described here was therefore commenced with the long-term aim of becoming part of the health service. However, because this approach was almost completely untried, it was felt necessary to develop the pilot project under the auspices of an agency for the handicapped. Efforts are now being made, so far unsuccessfully, to persuade the Ministry of Health to integrate the programme into the health service.

Early detection and early intervention call for a system which incorporates at least four components, recognizes a number of constraints, and operates in relation to other referring and referral/placement services in both a time and a geographical continuum. The components are:

1. early identification;
2. assessment and individual programme planning (IPP);
3. training;
4. re-evaluation.

The constraints are: poverty, lack of toys in the home, poor and expensive transportation, lack of trained personnel, poor social welfare services, weak and fragmented family structure and negative attitudes to handicaps.

The Jamaican Early Stimulation Project (ESP) therefore comprises a community-based office, operating and communicating with health services, with referral agencies for the handicapped and with hospitals, utilizing community women to work in the children's own homes with their mothers and using a relatively simple training package.

The components

1. Early identification

Referral of children with evidence of disability often occurs much later than is desirable, either because of lack of awareness or lack of acceptance of the need for intervention. Really early identification - before problems are overt - can be accomplished in two ways:

1. by public education regarding the normal milestones of development and encouraging parents to seek advice early;
2. by developmental screening.

The ESP in Jamaica has not attempted the first as a deliberate means of soliciting early identification because of the likelihood of being overwhelmed by a demand that could not be met.

The second strategy has been followed, however, by training school leavers in a government programme, the Jamaica Youth Corps (JYC) in developmental screening techniques. Between 1974 and 1976 four JYC workers were trained annually to perform the Denver Developmental Screening Test (DDST) and others. During this period a total of 1,316 children from different sources were screened. The results of this were reported in detail by Thorburn(1) and are shown in tables 1 and 2. Unfortunately, because of increased demand for intervention and other types of assessment, and the reduction in the numbers of JYC workers available, we have not been able to continue this programme since 1977. Its cost was calculated at US \$3.00 per test. The JYC workers were occupied for about one-third of their time in screening. Over the five-year period since the project started, there have been increasing referrals of children from hospitals, clinics, nurses and parents at younger ages. This is presumably the result of the project becoming known.

2. Assessment

When a child is identified by screening, or is referred by a professional or an agency, the next stage is assessment - of the type, severity and cause of the disability and the individual needs of the child and his family. An assessment protocol with a full history, DDST and a medical assessment are completed. Any other more specialized assessments are obtained by referral to other agencies or are carried out by visiting specialists, such as speech and occupational therapists. The assessment team is made up of three types of personnel, the Youth Corps workers, professional supervisors (usually a public health nurse, teacher and/or a social worker) and a doctor. Problems are identified and recommendations are made to be followed through by specific team members. Proper follow-through is facilitated by a record system with cross-indexes and a record-tracking file.

Assessment is followed by individual programme planning according to the problems identified. In most cases a home training programme is developed by using the Portage Check List of developmental skills and the Portage Curriculum.(2) In 30-40 per cent of cases where there are physical handicaps, simple aids or appliances may be required. In most cases the IPP is designed by the supervisor. Children with suspect hearing loss are referred to the Jamaica Association for the Deaf for more detailed assessment.

3. Ongoing training

This is carried out by the Child Development Aide (CDA) who takes the programme to the mother at home, where she demonstrates learning activities and gets the mother to model them with the child. The CDA visits weekly and the mother carries out the activities (usually 2-4) daily in between visits. As the child learns new skills, the aide goes on to teach more. The aides have weekly discussions with the supervisor.

4. Re-evaluation

Every three to six months the mother and child return to the office for reassessment and the programme is revised if necessary. The supervisor may also visit the home if this is desirable.

Results

The Kingston project has 200 children, with one part-time doctor, two supervisors and two JYC workers.

The St. Catherine Project, operating out of the adjacent parish to Kingston, has one supervisor (a public health nurse), eight CDAS and one JYC full time, and a doctor one day per week, serving 80 children.

1. The children

Children are admitted to the ESP from the age of a few weeks to six years (see table 3). They have all types of handicap (table 4)(3) though there are more deaf children in the St. Catherine Project because there are no services offered for deaf children in that parish.

In 1978 an analysis of the outcome of the first 100 children admitted to the project was undertaken (see table 5). In that year and in 1979, evaluations of developmental progress made by the children were undertaken by analysing the number of skills learned. Table 6 shows the mean number of skills learned by 36 children who had been consistently served on the project for two or more years(4). It is gratifying to see that with training, slightly and moderately handicapped children made as much progress as normal children. Although no specific evaluation of school performance has been made as yet, comments of teachers in schools where children are admitted indicate that children from the project adjust and respond better than unstimulated children.

From the prevention standpoint, the likely cause or causes of handicap in 210 children were determined in 70 per cent of cases. Table 7 indicates that approximately 35 per cent originated in the perinatal period.

2. Staff

All but one of the staff in either project have had no previous professional training for working with handicapped children. The supervisory staff include public health nurses, (2) teachers, (3) social workers, (2) and one psychologist. Five of these have been Peace Corps Volunteers, which explains the apparently high turnover rate. All were trained by short courses or have learned through experience. The supervisors have trained the CDAS in eight-week pre-service courses followed by monthly in-service training.

The CDAS in Kingston were selected from a government special employment programme in 1975 and 1976. Nine of the first 16 recruited in 1975, and all the eight recruited in 1976, are still with the project. Four work in institutions. We are satisfied with their performance, particularly in view of the poor homes they work in and the violence that has continually beset some parts of Kingston.

3. Parents

There is much misunderstanding among parents of the nature, causes and realities of disability. Superstitions as to cause are widespread and there are unrealistic expectations of the outcome. Many parents do not seem to realize that a handicap is permanent; others believe the child will never amount to anything. For these reasons, parent orientation was commenced for all "new" parents entering the project. This is held monthly for a whole day and involves talks, discussions and films. In St. Catherine, it is planned to train some of the parents as well. In Kingston three of the CDAS are themselves parents of handicapped children.

Discussion

1. The constraints

In addition to the above-mentioned problems, poverty and economic deprivation are serious constraints. These are reinforced by and interact with lack of transportation, poor social welfare services and the special Caribbean problem - the absent father and weak family structure.

It is amazing that mothers will co-operate in the demands of training in spite of these conditions, which have become more severe in recent years. Lack of co-operation in the project is a common problem and one of the most difficult to solve, especially when the child is severely handicapped, as there is little incentive for effort and no respite in view.

Another serious problem is the poor remuneration of the CDAS. Being temporary government employees on a fixed wage, the severe increase in cost of living has hit them particularly hard. This is linked up with the failure so far to have the project fully accepted in the system.

The system

As stated earlier, the logical place for a project of this type with its strong emphasis on early detection and home management, would seem to be the Maternal and Child Health Services. Jamaica has a well-established community health aid programme into which it could be ideally integrated. There would be scope for extension to the rest of the country. Unfortunately, it has not yet been possible to implement this and the Kingston project remains funded by a grant from the Ministry of Social Security.

The St. Catherine project is not supported by the government and is tenuously funded by grants from overseas organizations. Parents, however, have recently established an association which is trying to raise funds to support it. Although the project is a low cost one (US \$16,000.00 per year or US \$200.00 per child per year), without government support it is an ambitious figure for a small new parent group to raise. It is hoped, however, to continue with plans to increase parent involvement and to incorporate specific measures for the prevention of handicaps through the education of parents and the general public.

Conclusions

The project described here demonstrates that early detection and early intervention can be implemented at low cost. Additional training of health staff and educational measures for parents and the public are seen as a realistic approach to improving the preventive component as well. Long-term benefits in terms of better adjustment and integration of children with disabilities into society have not yet been professionally evaluated, though the preliminary responses of teachers are very encouraging. There is now a need for a critical independent evaluation of the project if it should be recommended as a cost-beneficial model. In spite of the present difficulties, the Government of Jamaica should be congratulated on recognizing the need to give support to a project which seeks an innovative and low-cost approach to meeting a long unmet need.

Table 1

Results of screening normal children

Place visited	Age-group	Number tested	DDST results				
			Normal	Questionable		Abnormal	
				No.	%	No.	%
8 day-care centres	$\frac{5}{12}$ - 5 yrs	245	230	8	3.26	6	2.47
August Town-Hermitage-at home	$\frac{6}{12}$ - 5 yrs	400* 158	386	11	3.75	3	0.75
Malnutrition cases	"	50	49	1	0.5	-	-
Backyard nurseries	"	20	19	1	0.2	-	-
Total		715	684	21		9	

* Four hundred children were screened on the screening questionnaire. Of these, 158 received the DDST.

Table 2

Results of screening "abnormal" populations

Place visited	Age-group	Number tested	DDST results				
			Normal	Questionable		Abnormal	
				No.	%	No.	%
Pediatric clinics	$\frac{7}{12}$ - 6 yrs	328	212	38	11.6	78	23.8
Special clinic for M.R. children	$\frac{3}{12}$ - 14 yrs	315	52	22	7.0	235	74.6
Eventide home	3-18 yrs	64	-	-		64	100.0
Five places of safety*	$\frac{3}{12}$ - 10 yrs	94	46	15	16.0	30	31.9
Total		801	310	75	9.4	407	50.8

* Residential homes for abandoned children.

Table 3

Age of children at entry

Sex: 23 males, 13 females

Age at entry into project: mean age: 3 years

Range: ten months to six years, seven months

Time on project: mean: 35.2 months

Range: 24 to 46 months

Table 4

Types of handicap

Mental retardation alone	40.0%
Mental retardation and physical handicap	20.0%
Two handicaps as well as M.R.	4.0%
Speech handicaps	4.0%
Seizures	2.0%
Deafness	2.8%
Physical handicap alone	4.4%

Table 5Outcomes

	<u>Number</u>
Still on project - 20 per cent in basic schools	40
Gained normal results on DDST	2
Left project due to lack of parental interest	11
Left project due to change of address	10
Placed in school:	
Normal school	5
Special education for M.R.	16
Schools for the deaf	4
Centre for physically handicapped	3
Placed in residential institutions	5
Died	4

Table 6

Mean skills acquired per month by children on ESP
for two years or more

<u>Severity of handicap</u>	<u>Number of children</u>	<u>Mean skills per month</u>	<u>Range</u>
Mild	6	6.6	5.8- 7.6
Moderate	17	5.5	1.5-10.1
Severe/profound	13	3.6	1.6- 6.9
Total	36	5.03	

Expected for normal children 6-8/months.

Table 7Causes of handicap - in 210 children

Unknown etiology	32.0%
Post-infective brain damage	11.0%
Peri-natal complications	20.0%
Neo-natal jaundice	6.0%
Pre-natal infections and hypertension	9.0%
Chromosomal abnormalities	13.0%
Single gene disorders	4.2%
Head injury	1.4%

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JORDAN

S. Khuffash, H. Abu Ghazaleh, M.A. Shami

Introduction

The most marked characteristic of development plans and programmes in Jordan until the late 1950s was the major emphasis placed on the material, economic and technological aspects of development and a concomitant neglect of the social aspects, the aim being to take the fullest advantage of scientific and technological progress in an attempt to approach the level of advanced industrialized countries.

The beginning of the sixties saw the adoption of a new approach to development with the understanding of the importance of its social aspects. Developing countries, Jordan among them, realized that economic development plans could not be formulated in isolation from social development, with particular emphasis on the individual, his needs and aspirations as a human being. Sociologists today hold the view that no true development is possible if this human aspect is neglected.

But despite the fact that development planners and decision-makers have grasped this idea, the situation of the handicapped in Jordanian society at the present time leaves a good deal to be desired. As a group, the handicapped have until very recently remained marginal in terms of planning, interest and scientific study.

Nevertheless, voluntary efforts have been made by a number of associations and individuals to help the handicapped, and though these efforts lack a scientific basis they do reflect a new attitude to the subject and an awareness of the need to try to find at least some solutions to the problems of the handicapped in society.

The research team responsible for this paper is grateful to all the institutions which serve the handicapped in Jordan; without the help of the personnel of these institutions this study would not have been possible. (Special thanks are due to Mr Zuhair Zakaria, who made a valuable contribution to the field side of the study.)

The condition of the handicapped in Jordan today

The Queen Alia Fund has carried out a comprehensive study of the number and condition of handicapped people in Jordan. This study, which has not yet been published, revealed a total of 18,829, broken down as follows by category of handicap:

Deaf	3,143
Blind	2,088
Deaf and blind	1,744
Partially paralysed	4,857
Completely paralysed	926
Hand amputated	246
Leg amputated	352
Arm amputated	78
Hand and leg amputated	11
Arm and leg amputated	9
Severe mental retardation	2,127
Moderate mental retardation	2,741
Emotional disturbance	457

The study indicated that among the many factors causing handicaps are poverty, ignorance and disease, but did not indicate the correlation between these factors and the handicap condition. The research team undertook a detailed study of the condition of 139 handicapped individuals in Amman in four rehabilitation institutions selected at random. The subjects comprised 39 deaf, 40 blind, 34 moderately retarded and 26 severely retarded.

Various factors, including those assumed to be the causes of handicap, were examined, among them:

1. age of mother at time of birth;
2. age of father at time of birth;
3. size of the handicapped child's family;
4. family income;
5. diseases contracted by the mother during pregnancy;
6. diseases contracted by the child after birth;
7. type of handicap;
8. degree of handicap;
9. age at which the handicap was detected;
10. date of admission to the institution;
11. degree of improvement;
12. level of education of mother;
13. level of education of father.

The study revealed the following proportions:

<u>Level of education of mother</u>	<u>Percentage</u>
Illiterate	48%
Primary	25%
Preparatory	15%
Secondary	8%
Higher	2%
University	1%
Mother dead	1%

<u>Level of education of father</u>	<u>Percentage</u>
Illiterate	26%
Primary	29%
Preparatory	12%
Secondary	20%
Higher	1%
University	1%
Father dead	1%

These figures indicate that the high percentage of illiteracy among mothers in the sample investigated could be a factor underlying some types of handicap, due to ignorance of how to deal with conditions such as sight and hearing impairment in early childhood; it is also very probable that ignorance is a causal factor in many cases of mental retardation if hereditary factors are isolated. Lack of proper peri-natal care and nutrition may also be attributable to ignorance.

Age at which the handicap was detected

<u>Year</u>	<u>Percentage</u>
First year	60%
Second year	18%
Third year	7%
Fourth year	5%
Sixth year	2%
Seventh year	2%
Eighth year	2%

Age of diagnosis of handicap and admission to a rehabilitation institution

<u>After the age of</u>	<u>Percentage</u>
9	8%
8	8%
7	8%
6	5%
5	10%
4	10%
3	18%
2	19%
1	9%
A few months	7%

The above table and the one preceding it show the great gap between the age at which the handicap was detected and the age at which it was diagnosed and the child admitted to a rehabilitation institution. This is attributable to ignorance of how a handicap case should be dealt with, or perhaps to the inadequate number of rehabilitation institutions in Jordan.

Family income and size of family

The average monthly family income among the cases studied was JD 87; the average number of people in the family was 8; the average income per member of the family was JD 11; and the median income was JD 62.

Place of birth

Sixty-seven per cent of the children were born at home and 33 per cent in hospital.

Diseases contracted by the child after birth

Smallpox	14%
Fever	4%
Tonsil infection	4%
Meningitis	1%
Other diseases	14%

Thirty-seven per cent of the children covered by the study had contracted a disease after birth.

The above figures show that the children concerned were not brought up in a suitable social and economic environment. This makes society as a whole directly or indirectly responsible for the existence of handicaps.

Early detection of handicaps

The situation regarding the early detection of handicaps is not entirely satisfactory. A survey conducted by the Queen Alia Fund covering the whole of Jordan revealed that 71.9 per cent of handicaps were detected at the age of 12; this poses great difficulties in respect of rehabilitation, or at the very least in helping the handicapped person to cope with some of his problems.

MCH centres

However, there is a trend towards a new approach to the problems of the handicapped, and particularly in respect of early detection, so that appropriate remedial measures may be taken at the earliest possible stage. The Ministry of Health plays an important role in implementing preventive measures, and has adopted plans to expand and increase the number of Maternal and Child Health Centres (MCH centres) in Jordan. These centres provide a comprehensive range of pre-natal and post-natal services, as well as health education and counselling.

Expectant mothers are given a complete physical examination at MCH centres, including all necessary laboratory tests, and their medical history is recorded. They visit a centre every four weeks during the first 32 weeks of pregnancy, subsequently every two weeks, and later once a week. During these visits they receive a routine check-up, together with advice on nutrition and other matters relating to their condition.

Pre-natal health education is also provided through lectures and practical demonstrations at the centre, and through home visits. These visits serve in addition to provide a picture of the expectant mother's living conditions and the suitability of the premises for delivery of the child at home.

Normally, the child is delivered at home, with the assistance of a specialized nurse.

During the period of pregnancy, the expectant mother receives free medicine and food, including vitamins, milk, oil and other nutritional essentials.

After the child is born, it is registered at the centre and given a complete medical examination. During the first year the mother takes the child to the centre once a month for a routine check-up; between the ages one and six, these visits are made every three months. Sick children are taken to the centre promptly and are given the necessary medicines. Underweight children receive continuous supervision and special food until they recover their normal weight. All children are given the usual vaccinations.

In addition, mothers receive instruction and guidance on health and nutrition, and home visits are made by nurses. The purpose of these visits is to obtain a general picture of the home and family environment, cleanliness and social condition, and to promote co-operation between the home and the centre. Visits are also made when the child is sick and unable to attend the centre.

The centres also operate a programme of health education and counselling for mothers and expectant mothers. This programme includes lectures on various aspects of child health and development, practical demonstrations of the preparation of children's food and the feeding of children, and home visits designed to help mothers to develop positive attitudes towards child development and nutrition. Such health education is backed up by television and press media.

In 1978 there were some 50 government-operated MCH centres in Jordan, located in both rural and urban areas, plus ten centres run by UNRWA. The Ministry of Health aims to increase the number of centres to 200, one for every 10,000 inhabitants, with the assistance of various international organizations.

These MCH centres form the backbone of preventive medicine and play a very important role in the early detection of handicaps.

School health and counselling services

School health services, introduced by the Ministry of Education in 1976, also help to detect handicaps at an early stage. Earlier, in 1971, the Ministry established a Social Counselling Division. In conjunction with the Queen Alia Fund, this division conducted a comprehensive survey to collect facts pertaining to the condition of the handicapped in Jordan; this signified a shift from a strategy of simply treating such cases to a strategy of active concern with the wider problems relating to the handicapped. In this context, the School Counselling Division, in conjunction with the school health services, is making an effort to become a channel through which handicaps in schoolchildren can be detected at an early stage.

Early intervention: facilities and techniques

Once a handicap has been detected and diagnosed, the problem of treatment and rehabilitation arises. Here again, where Jordan is concerned, the situation is not altogether satisfactory. According to available figures, only a small proportion of individuals whose handicap has been detected and diagnosed are undergoing rehabilitation in government institutions. The rest are on the waiting lists for admission. Those living in major urban centres are fortunate in this respect, but facilities available diminish in proportion to the distance from towns and cities, and are non-existent in rural areas.

Rehabilitation facilities for various types of handicaps are provided by institutions operated directly by the Department of Social Affairs; in addition, there are some private institutions which receive material or technical assistance from the department.

A Family Guidance Unit is attached to every rehabilitation institution. The social specialist from each unit visits the homes of handicapped children to offer help and guidance to mothers in coping with their children.

Institutions operated by the Department of Social Affairs

The blind are catered for by the Institute for the Blind in Amman, which provides education and rehabilitation for 150 male and female residential students.

The Amal Institute in Amman and the Institute for the Deaf in Irbid serve 140 male and female day and residential deaf students, while the Queen Alia Centre provides similar education and rehabilitation for 75 deaf persons.

Centres for mentally retarded children in Amman, Zarqa and Irbid serve 150 children between the ages of 6 and 16; they receive special training to enable them to acquire vocational skills and earn a living when they leave the centres.

The King Hussein Social Institution gives special training to 60 partially paralysed students.

The Vocational Rehabilitation Centre at Ruseifa provides vocational training in different specializations for 60 students suffering from various types of handicap.

Protected workshops have been set up for handicapped persons who have been trained but are unable to work under normal conditions.

Voluntary institutions

There are five voluntary centres providing rehabilitation facilities for 470 handicapped persons, and seven vocational training centres serving 335 handicapped trainees. Among these voluntary institutions are:

Queen Alia's Association for the Handicapped, which works in conjunction with the Centre for the Deaf at Ruseifa;

the Association for the Revival of Jordanian Rural Areas, which participates in the administration of the Amal Institute for the Deaf;

the Mental Health Association, which collaborates with the Amman and Baqa' centres for mentally retarded children;

the Catholic Relief Association, a contributor to rehabilitation projects for the handicapped;

the Bible Lands Society, which supplies equipment and tools for blind children;

the Swedish Institute for the Rehabilitation of the Handicapped, which renders direct services for the mentally handicapped.

Financial assistance to families with handicapped children

Owing to Jordan's financial problems, the Ministry of Social Affairs is unable to provide financial assistance to families with handicapped children. However, several voluntary bodies do so; among them Care, the Manonites, the Catholic Relief Services, the Swedish Institute, and the Baptist Association.

Evaluation of results achieved by institutes aiding the handicapped

Although a small percentage of Jordanian children whose handicap has been detected and diagnosed are undergoing rehabilitation and treatment, there remains an increasing number on the waiting lists. The Ministry of Social Affairs is aware of the shortage of facilities, and has included in its plans programmes and projects aimed at extending and expanding the services available to the handicapped throughout the country.

However, an analysis of existing services carried out by the research team indicated that positive results are being achieved to some extent. The team selected 139 cases in the city of Amman attending various institutions. The degree of progress was based on the personal observations and appraisals of the directors and staff of the institutions in question.

Information and education for better awareness

In Jordan, the attitude of society to the handicapped has evolved in three stages:

Stage one

In this early stage, the attitude was negative. A handicap was regarded as being beyond the control of human beings, and the individual afflicted had no alternative but to live with his handicap and accept it as an unfortunate fact. His only too could do nothing but resign themselves to the situation.

Stage two

In the early 1950s, new ideas emerged which called for a new approach to the problems of the handicapped. Voluntary national and foreign movements promulgated the idea that handicapped children have a right to education, rehabilitation and training designed to enable them to live a normal life, and this idea found a response among the families of the handicapped. A report was submitted in 1951 to the Minister of Social Affairs drawing his attention to the need for the social care and rehabilitation of handicapped people and for a planned approach to dealing with their problems.

The provision of social services for the handicapped, initiated in the 1950s, continued until 1970, but these services were on a limited scale, lacked a scientific approach, were operated by non-specialist personnel, and were very slow in expanding.

Stage three

A comprehensive and dynamic approach to the problems of the handicapped began to be made in 1970. The role of the family, the school, the state and society in the provision of adequate services (including early detection, diagnosis and admission to a rehabilitation centre) was recognized.

As a result, the following bodies were established in the seventies:

The Directorate of Special Education of the Ministry of Social Affairs

This directorate was set up in collaboration and consultation with foreign and Arab experts, and was thus able to function efficiently and effectively from the outset. It initiated advanced rehabilitation programmes in various institutions and appointed a social counsellor to each institution to help in solving the personal and family adjustment problems of handicapped individuals. It also introduced training programmes for personnel working in the field of rehabilitation of the handicapped, including grant-aided training abroad. In addition, the directorate launched campaigns designed to heighten awareness among the general public of the problems of the handicapped and to help people to see these problems rationally and in depth.

The Family Guidance Division of the Ministry of Social Affairs

The Ministry of Social Affairs established this division to handle family problems which may in one way or another affect the relations between parents and their children. In the division's terms of reference, no specific mention is made of families with handicapped children, but officials of the ministry, in a discussion with the research team, showed deep concern with and understanding of this subject. It would seem that this division is expected to play an important role in disseminating information and promoting awareness among the general public concerning the problems of the handicapped.

The Queen Alia Fund

This fund was created to develop and improve the quality of social services in general, with particular emphasis on services provided for the handicapped. The fund conducted a nationwide fact-finding survey of the status and condition of the handicapped throughout the country, some of the results of which were given at the beginning of this paper. The survey was preceded by lectures and seminars designed to spread information about the problems of the handicapped and to heighten public awareness of them. The members of the research team participated in this campaign, which also made use of mass media.

The Royal Committee for the Rehabilitation of the Handicapped

The main function of this committee, composed of experts and specialists, was to carry out a comprehensive survey of the condition of handicapped persons throughout Jordan, make appropriate recommendations, and co-ordinate the work of various institutions. Its task ended when the Queen Alia Fund was set up.

The National Society for the Mentally Handicapped

Established in 1978, this society includes parents and professionals. It concentrates on the problems of mentally retarded children.

The Mental Health Association

This association was formed in 1970. In addition to providing services and special education for mentally retarded children, it conducts campaigns to spread information on this subject among the general public. These campaigns feature seminars and lectures at universities, higher educational establishments, secondary schools and welfare organizations, and makes use of mass media and local newspapers.

The Department of Special Education at the University of Jordan

This department was created in 1979. It admits graduates who wish to specialize in special education.

The Department of Special Education at the Institute of Social Work

Also set up in 1979, this department operates courses leading to a diploma in special education for the personnel of rehabilitation centres. The introduction to the statement of the institute's aims reflects present-day trends in the approach to the problems of the handicapped in Jordanian society; it reads: "Due to the increased interest in the handicapped individual in Jordanian society, and in conformance with the services provided by various government agencies and rehabilitation institutions for the handicapped, the institute aims to participate in this work by providing these institutions with qualified personnel and by conducting scientific studies in this field".

Why more needs to be done

1. The right of the handicapped, as a citizen in Jordanian society, to receive a soundly based education under qualified teachers, supervisors and social specialists through programmes at institutions, so that the handicapped person may develop and be capable of using his potential to the full.
2. The increasing interest taken in the handicapped by the state, and its willingness to provide appropriate educational, social, health and rehabilitation services for them in line with present-day trends throughout the world.
3. The significant increase in the number of institutions for the handicapped in all sectors (government, private and foreign) and the expansion of the programmes provided for them, requiring that qualified staff be made available to such institutions to enable them to implement their programmes.
4. The shortage of qualified teachers capable of helping and training the handicapped in these institutions.

Conclusion

The above outline of what has been achieved in Jordan since 1970 in an attempt to provide adequate services for the handicapped reflects the dynamic approach that is now being made to this problem by social workers, psychologists, educationists, and the state itself. The co-operation of doctors is an essential element too, for it is imperative to develop a national strategy of early detection of handicaps. In this, the MCH centres, whose work has been described, play an important role. Early detection and intervention need to be co-ordinated with the provision of appropriate rehabilitation, educational and social services. Finally, awareness on the part of the citizen, the family, society and the state of the problems of the handicapped and of their right to live full and happy lives as useful citizens remains the basis of all these efforts.

NIGERIA
E.O. Caulcrick

Preface

This case-study has been undertaken at the request of the Unesco Special Education Unit, addressed to the Federal Ministry of Education in the Federal Republic of Nigeria.

Some of my colleagues expressed the view that structured programmes for the early detection of handicaps are non-existent. We are all aware of this fact, but inquiries have to be made to assess the situation objectively and look for resources to meet the demands arising from this state of affairs.

The limited time at my disposal made it difficult for me to visit the 19 states of the Federation, but copies of a questionnaire were sent to each ministry concerned in the 19 states.

The terms of reference required an inquiry into the tripartite efforts made by the three ministries responsible for the health, welfare and education of the handicapped. For the purpose of this case-study Nigeria has been divided into six geographical zones: North-Eastern, North-Western, Central, East, West and South. Visits were made to a state capital in each zone and personal contacts were made with officials in the Ministries of Health, Education and Social Welfare, university teaching hospitals, the National Orthopaedic Hospital, mission hospitals, traditional healers and herbalists, voluntary agents and organizations, private institutions, special schools and services for the handicapped, parents and handicapped individuals. What is documented comprises samples of the existing programmes for the handicapped, their parents and the community as seen and reported at this stage of our development; discussions with professionals about the existing programmes and programmes in the pipeline; and a summary of the data collected from the questionnaire.

Recommendations are made on the findings of the case-study, and on the knowledge of the needs of the handicapped and their parents in the Federal Republic of Nigeria.

It is interesting to place on record one of the earliest intervention programmes in Nigeria by an orphanage established by the Roman Catholic Mission in 1948. The orphanage served as a home for motherless babies in Ondo province (now Ondo state) under the supervision of the St. Louis Sisters, who had just arrived in Ado-Ekiti.

Most of the children, deprived of maternal care, were seriously ill and malnourished on admission. This brought down the survival rate. The cause of maternal death at that time was usually associated with obstetrical complications and other causes, especially tuberculosis.

At the inception of the Maria Assumpta Maternity Home, accommodation was provided for the babies. They were later transferred to a newly built general hospital where two rooms were provided to meet the basic needs of 16 babies - a room for the newborn and a larger room for the older children. Their ages ranged from two days to six months on admission.

Today the home is still functioning very well. The main objective is to care for deprived children, thereby relieving the family of immediate distress on the death of a parent (usually the mother) by offering the child accommodation to tide it over the difficult and dependent phase so that later it may return home in a healthy condition.

On admission, newborn infants receive prophylactic anti-tetanus serum. Older children receive smallpox and triple vaccination, BCG inoculation, and weekly Daraprim. They all attend the child welfare clinics. The relatives are encouraged to keep up contact and be involved in rearing their children with the aim of ensuring security for the baby on its return home. This also provides an opportunity of promoting understanding and appreciation of the child welfare clinic.

Cultural traits preventing early intervention

In Nigeria, as in many other countries, the care of the handicapped was formerly relegated to the background because of ignorance, superstitions and taboos related to different ethnic cultures.

This can readily be substantiated by the nation's cultural diversity. Nigeria has a population of about 70 million. The largest concentration of black people on earth, with 250 ethnic and

language groups scattered over the 19 states of the Federation, with a total of 299 local government areas.

A recent study conducted by the Vice-Principal of the Federal Advanced Teaching Training College for Special Education Ibadan in 1977 on "The Nigerian culture, its perception and treatment of the handicapped" revealed 16 salient factors in the cause and effect relationship of the birth of handicapped children. This data was gathered from the first assignment given to first-year students drawn from the 19 states of the Federation.

The following are the causes; the numbers in brackets indicate the number of cultures that believe in the cause and effect relationship:

1. curse from God (12);
2. breaking laws and family sins (10);
3. offences against gods (9);
4. witches and wizards (5);
5. adultery (3);
6. misfortune (3);
7. ancestors (3);
8. God's representatives (2);
9. misdeed in a previous life (2);
10. illegal or unapproved marriage (2);
11. shows the omnipotence of God (2);
12. evil spirit, e.g. Ekwensu (2);
13. killing certain forbidden animals;
14. a warning from God (1);
15. fighting elders during harvest/planting seasons (1).

Treatment of handicapped children

The Yorubas respect the Emeres' (God's representatives) while they are alive, especially if they live to be adults; they are consulted on important matters. However, if they die young they are either burned, or cut to pieces and buried. According to belief, these treatments before burial cause deformity on reincarnation. The Yorubas also use the handicapped to collect debts from unwilling debtors. The handicapped person is dumped at the door of the debtor, and this forces him to pay the debt.

There are two other reasons for taking care of the handicapped while he/she is alive. The first reason is to prolong his life as long as the mother is of child-bearing age. There is a strong belief that if the handicapped dies very young and while the mother is of child-bearing age, the mother will bear the same child again and he will still be handicapped.

The second reason is that allowing the handicapped to go begging brings shame to the family, and he may be mistreated by other ethnic groups.

Other cultures kill the handicap by poisoning him or starving him to death. Both the Yorubas and the Igalas engage in this practice.

Some cultures take the baby into a far away bush and leave him there to die. There are various other ways of getting rid of the handicapped. For instance, the Kagoros take the child to the Shrines and forbid the parents to visit him. The Yorubas cut the child to pieces or burn him before burying him, and the Attackers take him to a distant bush, leave him with the promise to fetch him food, and never return; while the Tivs throw the child into the river with the belief that he will change into a big snake.

The foregoing remarks highlight the difficulties the early carers of the handicapped had to face. It cannot be said that these beliefs and treatments are practices of the past. They exist alongside modern doctrine and practice, sometimes in the same village or city. There are some areas where these beliefs and practices are non-existent.

A review of legislation for the handicapped

Social welfare and education legislation

The first legislation enacted in Nigeria concerning handicapped children was the Young People and Children's Act of 1943 introduced by the Colony Welfare Service for the benefit of socially maladjusted children. The Ministry of Education came in when the first grant-aided school for the handicapped was established in 1957 (Wesley School for the Deaf). The Lagos Education Act of 1957 (Article 61 g.), the Northern Nigeria Education Law of 1964 (section 3, paragraph 3) and Western Region Law (section 88/2) were all provided for the education and treatment of handicapped pupils. The care of the handicapped is the tripartite responsibility of the Ministries of Education, Health and Social Welfare, but there has never been any legislation from the Ministry of Health concerning detection and intervention programmes for the handicapped. The Child Guidance Clinic established in September 1964 under the Federal Ministry of Education in Lagos covered diagnosis, treatment and placement of handicapped children. More details will be given later in this case-study.

National policy on education (special education)

The main emphasis in Nigeria has been on the education of handicapped children. Practically nothing has been done in the way of early detection and early intervention. The National Policy on Education (1977), section 8, paragraph 65, Nos. 9 and 10 states: "Children's clinics will be attached to most hospitals, for early identification of handicapped children, and for curative measures and medical care before and after they reach the age of primary schooling; also the Ministries of Health, of Education and of Social Welfare, Social Development and Labour will work jointly on most programmes for handicapped children, and the National Council on Special Education will be composed to reflect this collective responsibility".

In addition, according to the recommendations of the panel on Special Education for the Implementation of the National Policy on Education at the workshop held in November 1978, one of the duties/functions of the National Council on Special Education when set up will be, *inter alia*, "to prevent handicapping conditions, the Ministry of Health (local health authorities) should maintain a register of children at risk having pre-natal and post-natal incidences leading to malformation and possible organic disorder or any delay in acquiring important sensory motor skills which would help to identify pupils likely to experience learning problems".

Important landmarks in special education in Nigeria

Education intervention

The earliest formal educational intervention was the establishment of the Sudan Interior Mission School for the Blind in Fano, Kano State, in 1944. This was followed by the provision of a few special centres predominantly for blind and deaf children. Provisions were later made for the care and protection of severely physically handicapped and mentally retarded children.

The establishment of the Spastic Clinic, Royal Orthopaedic Hospital, Igbobi Lagos in 1947 opened up new vistas for handicapped children in Nigeria. This day clinic became necessary when it was felt that it was impossible or undesirable to take on the hospitalization, long-term general management and special treatment of spastic children in a busy hospital. The need for service to these children on an outpatient basis was imperative and offered a basis for co-operation between health, education and welfare. One of the aims of the clinic was to offer basic primary education to those children with reasonable intelligence and where possible to arrange for continued education in normal primary and secondary schools, thus integrating them into society. It was founded by the Nigerian Red Cross and the Federal Ministry of Health.

Grants-in-aid to voluntary agencies

In the mid-sixties, regional and local education authorities became involved in the education and the care of handicapped children by offering grants-in-aid to special schools under the control of recognized educational voluntary agencies, most missionary bodies.

Financial assistance for the education of the handicapped

Before 1978, the Federal Government used to give financial assistance to state governments for the education of the handicapped. In addition, some of them who were considered fit and secured admission to institutions of higher education and training were awarded scholarships by the Federal Scholarship Board. Most of the state governments also awarded scholarships to deserving handicapped students.

Survey of special education facilities

The Special Education Unit was established under the Teacher Training Section of the Federal Ministry of Education in December 1974 when the Universal Primary Education Scheme was being planned. The unit carried out a survey in 1975 and identified a number of problems, the most important one being an acute shortage of trained personnel to teach the handicapped; approximately two-thirds of the teachers in special primary schools were not trained to educate handicapped children (see table 1).

Table 1

Special education facilities reflecting the acute shortage
of trained specialist teachers. Enrolment and staff (June 1977)

Type of facility	No. of schools	Enrolment	No. on waiting list	Specialist teachers	Non-specialist teachers
Schools for the blind and partially sighted	5	331	117	14	31
Integration of the blind	7	127			
Schools for the deaf and hearing impaired	7	775	279	20	50
Integration of the deaf		56			
Homes and schools for the physically handicapped	8	701	229	12	38
Homes and centres for the mentally retarded	6	265	240	6	15
Total	26	2,255	865	52	134

Training of personnel

In the Third National Plan covering the period 1976-1980, 3.1 million naira were allocated for the training of personnel in special education. In 1976, 75 candidates were awarded bursaries to study overseas. Twelve of these were handicapped students. Another group is due to leave; the exercise continues.

Some existing services geared to the early detection of different categories of handicapping conditions in children in the Federal Republic of Nigeria identified

Maternal health services - pre-natal measures

Professionals in the fields of health, education and social welfare in Nigeria are aware of the importance of early detection of potential handicaps in children, but the true position is that at present there is no organized standard procedure for such detection at the pre-natal stage. This is due to lack of facilities and trained personnel.

Basic health service scheme

Ante-natal clinics operate under the basic health service scheme throughout the Federation. Apart from normal routine checks, expectant mothers are counselled on such matters as diet and drugs, the evils of self-medication and excessive exposure to radiation. The effect of exposure to infectious or contagious diseases and the importance of its immediate report are also stressed. Abnormal cases are referred to maternity hospitals for emergency treatment. In all ante-natal clinics pregnant women are now being protected against tetanus to reduce the incidence of neo-natal tetanus.

Research on rubella

At the University College Hospital, Ibadan, Oyo State, research is being conducted in conjunction with the Commonwealth Society for the Care of the Deaf on the causes of deafness, highlighting maternal rubella.

Neo-natal jaundice

A private traditional medical practitioner in Lagos, Chief Ajanaku Araba, has a well-established maternal health clinic. According to him, neo-natal jaundice is cured in-utero during the early months of pregnancy by drugs prepared from native herbs given after confirmation through tests of vaginal discharge.

"At risk" registerNo register compiled so far

The term "at risk" child introduced about a decade ago by paediatricians and otologists concerned with the early diagnoses of deafness has gained acceptance among professionals in allied fields. Here in Nigeria, it has been much talked about, but nothing has been done because of the high birth rate and dearth of trained personnel. Babies born in hospitals are routinely examined by paediatricians. Domiciliary midwives are also being trained to recognize abnormalities in babies, but no register has been compiled.

The Apgar score

In some hospitals the Apgar score has been introduced to identify normal thriving babies.

"High risk" mothers

In Ahmadu Bello University Hospital, Kaduna, "high risk" mothers are referred from ante-natal clinics for hospital delivery and follow-up treatment if necessary. The term "high risk" mothers in this particular hospital refers to:

- (1) expectant mothers of first, fourth and subsequent babies;
- (2) expectant mothers with history of defects in the family;
- (3) expectant mothers who are drug addicts;
- (4) expectant mothers with small pelvis.

What the policy on education says

It is hoped that the national policy on education highlighting the necessity for local health authorities to maintain a register of children at risk will serve its purpose.

Post-natal careRoutine medical examination

After delivery in hospitals and maternity centres, routine medical examinations are conducted for mother and child before their discharge. Defects detected are referred to appropriate clinics for further investigation and possible treatment. Family planning is introduced to interested mothers immediately after the examination. They are also advised to attend the post-natal clinic six weeks after delivery. After successful examination, cards are issued for monthly routine checks and guidance at the local child health centre or follow-up clinic.

Rubella babies

In Ahmadu Bello University Hospital, Kaduna, rubella babies are seen at the follow-up clinic five times a year to detect any abnormal conditions such as cataract, congenital heart defects, deafness, etc. These follow-ups are necessary because mild rubella resulting in mild mental retardation is not recognised by parents until school age.

Child health services

Clinic sessions

Before the advent of the basic health service scheme, child health centres and child welfare clinics or follow-up clinics did exist in some parts of the country, but now under the scheme almost all the 299 local government areas have programmes which cover both the urban and the rural areas of Nigeria. The programmes, almost identical in setting, are responsible for the health and welfare of children from birth to six years. Services rendered include nutrition and immunization programmes (e.g. BCG, triple antigen, oral polio, smallpox and measles inoculation). Also health education, home visiting, social activities, clinic sessions for babies and toddlers, and special clinics for working mothers.

Special clinics

In Lagos State special clinics are held for motherless babies and for children at the Ebute Ero Market Day Nursery. Villages on the island as well as the mainland are covered.

Strengths and weaknesses of child health services

Efforts are being made to extend child health services to all parts of Nigeria. Some of the programmes are identical and well established, others have just taken off, whilst others are still in the planning stage. The services rendered, though inadequate because of the acute shortage of resources (manpower, equipment, drugs and transportation) include: minor ailment treatment clinics; ante-natal care; deliveries of babies in suitably equipped clinics and homes; post-natal care; domiciliary home visits and nursing care; child health clinics; immunisation programmes; health education as an integral part of every type of health service; supervision of orphanages and special schools for handicapped children; nutrition education - reports received from some local governments in the rural areas indicated high demand because of the number of malnourished infants.

Personnel

The clinics are run by: health sisters; community midwives; midwives; community health attendants.

Sources of detection of handicaps and referrals

Birth defects are detected by doctors and midwives in maternity hospitals; eye and ear defects and other physical defects are detected by health nurses during home visits and during post-natal clinic sessions. Some are reported by parents, grandparents and neighbours. Such cases are referred to relevant hospitals for further investigation and treatment, e.g. institutes of child health, paediatric units of the teaching hospitals, orthopaedic hospitals, etc.

Bauchi State

In Bauchi State active midwives in some local government areas arrange health education programmes to encourage women to bring their children to the clinics. In some areas there is a high incidence of infectious diseases due to ignorance and poverty. (These also affect other rural local government areas in the Federation.) Isolated cases of Kwashi-Oror are still encountered. A well-organized nutrition programme has been established in Bauchi State. Baby shows in each local government area, and demonstration of balanced diet using local foodstuffs, are among the many items in the programme.

Incidence of malaria

The incidence of malaria is very high in Nigeria, causing high fever and enlarged spleen in children. The Neem tree (*Dogo-nyaro*) in Bauchi State is a useful remedy. The leaves when cooked and taken as herb tea have a curative effect on malaria. Research is being conducted on the Neem tree and other local raw materials at the Department of Pharmacology of the University of Ife, in Oyo State.

Meningitis

Meningitis is one of the most serious infections causing deafness in Nigeria. In most cases, when treatment is delayed or inadequate, deafness is total. In the dry season, the epidemic is common particularly in the northern parts of the country where dust and winds play contributory

roles, especially between February and April every year. Massive immunization campaigns are carried out during which people are inoculated whenever there is an epidemic. Experts in laboratory technology in Bauchi State are working on research to diagnose the prevalence of cerebro-spinal meningitis. The research will be the first attempt to identify the causes and types of meningitis. It is intended primarily to help speedy treatment of the disease, and if possible find a way of preventing it. Hitherto treatment of the disease had been based on clinical assumptions, but laboratory technologists working on the research think that laboratory analysis of the disease could help immediate treatment.

Borno State

In Borno State the dearth of trained personnel is accentuated because of the vast area covered by a few medical personnel. According to the principal health sister, each of the 18 local government areas has one health sister/community midwife who is assisted at the clinics by rural health assistants and community attendants. Local people with full primary school education are brought in and trained in maternity and child welfare techniques, e.g. personal hygiene, checking blood pressure, testing urine and home visiting. With the help of youth corps workers these auxiliary workers cover a vast area, concentrating on areas where there are no hospitals. The epidemiological unit does a lot of immunization, including routine vaccination for children.

Paediatric services

Teaching hospitals

During the present five-year plan (1975-1980) it will be possible to have a teaching hospital in each state capital of the Federation. Starting usually from the first year of life, detected cases of handicaps are referred to the department of paediatrics of the teaching hospitals, where thorough investigation and possible treatment take place.

Department of paediatrics, Lagos University Teaching Hospital

According to the head of the department, there are no measures for screening handicapped children in the Lagos University Teaching Hospital. Children suspected of having a handicap among those seen in the hospital are referred to an assessment clinic from where they are directed to the appropriate services.

Family health clinic

At the Oguntolu Street Family Health Clinic, where primary health care is given to a target population of 30,000 in the Somolu area of Lagos State, children are cared for from birth to six years. It is reported that the following handicapping conditions are detected: poliomyelitis, mental retardation, blindness and deafness. These cases are referred early to the assessment clinic of the Lagos University Teaching Hospital.

Broad objectives

This clinic has the following broad objectives:

- to provide an integrated preventive and curative service to members of the community in the target area;
- train two main categories of primary health care workers: health nurses and field workers, to serve the community;
- conduct research into the organization and evaluation of the services rendered.

Main shortcomings

Its main shortcomings as seen by the department are as follows:

- the need to improve skill in community care;
- pre-natal and post-natal services formerly rendered have been taken over by East local government.

Strengths

The existence of a target population.

Involvement of the community in the provision of the services, to a fair extent.

The nurses diagnose and treat common diseases using standing procedures.

Extensive home visiting is practised.

An effective drug supply system has been set up.

After detection and assessment of a child with a handicap, he is referred to an appropriate facility in Lagos for rehabilitation and education.

Personnel

The staff of the Lagos University Teaching Hospital are doctors and specialist neurologists. Family health nurses detect abnormalities in the clinic, while field health workers who give primary care in the community do so in the homes.

Institute of Child Health and Primary Care - Lagos University Teaching Hospital

There is no measure for early detection of handicaps in children. When parents report, children are examined.

Programmes for children at risk, hospital paediatric services and infant development centres do operate on limited and research bases. The main objective of the institute is to screen children reported by parents or others to be handicapped and offer referral and consultative medical services. Doctors and social welfare officers are involved, and most children are cared for by parents.

Sickle cell disease

In the department of paediatrics at the Lagos University Teaching Hospital sickle cell disease is detected sometimes as early as six months through blood tests. Parents are referred to clinics for advice, health education, treatment and follow-up. Sickle cell disease is also detected at maternity clinic hospital centres and school health clinics.

Visual handicaps

Department of ophthalmology, Lagos University Teaching Hospital

There is no existing measure for the early detection of visual handicaps in children, but usually visual handicaps are detected before the age of ten, and cases are referred. In this department, medical and paramedical professions are involved. The objectives of eye specialists, ophthalmic nurses and optometrists are to detect visual handicaps early, treat them, and prevent blindness. These professionals are few and are not easily accessible to various sectors of the population.

After detection, visually handicapped children are given visual aids where applicable or sent to special centres for education and/or rehabilitation.

Onchocerciasis

An onchocerciasis control programme is being planned by the Federal Ministry of Health so that the incidence of blindness due to onchocerciasis may be reduced.

Department of obstetrics, Lagos University Teaching Hospital

Clinical examination is performed at birth and soon after birth. Cases seen are referred for treatment. The service is limited to babies delivered in hospitals.

Infant development centre, Anambra State

The University of Nigeria Teaching Hospital, department of paediatrics, Anambra State, caters for a large catchment area which includes both urban and rural areas of the Imo, Anambra, Cross-River, Rivers and Benue States.

The department has started an ongoing project on normal growth and development of the Nigerian child. Anthropometric measurements have been carried out in longitudinal and cross-sectional studies in the first year of life. Financial support for the continuation of this project is lacking. With financial support it would be possible to extend the existing services to include programmes concentrating on the early detection and prevention of handicaps in this environment.

Apart from referrals from clinics, cases are usually brought in by parents because of delay in development. Where medical treatment is indicated, the handicapped child is admitted to hospital for further care. Family counselling is initiated through the medical social workers and health sisters.

Screening of infants (University College Hospital, Ibadan)

The University of Ibadan Institute of Child Health and Infant Welfare Clinic has a programme for the screening of infants and children for physical, sensory, mental and developmental defects. Age of detection will depend on the type and cause of the abnormality. In general, congenital cases are seen in the first few weeks of life in most cases of deliveries in hospital/maternity centres from where many cases are referred to the clinic. Acquired defects will depend on the age at which these occur. These defects, when detected, are referred to appropriate clinics within the hospital such as ENT, neurology, orthopaedic and physiotherapy units for remedial measures. In conditions such as polio and cerebral palsy, appropriate advice is given as to the causes and how the condition could be prevented or its effects ameliorated.

National Orthopaedic Hospital, Igbobi, Lagos

The National Orthopaedic Hospital is now operating under the auspices of the Federal government in collaboration with the World Health Organization. Cases referred to the hospital include patients with haemoglobin disease "SS" (sickle cell), haemoglobin diseases "SC" (not sickle cell), birth defects, childhood infections and infestations, and spinal diseases, to mention just a few.

Haemoglobin disease SS (sickle cell)

- (a) This is anticipated from knowledge of the genotype of the parents (known among a few privileged groups).
- (b) It is confirmed within three months of life from the genotype of the baby.
- (c) Manifest haemolytic episodes occur from the first year of life.
- (d) Disabling complications due to thrombotic episodes, e.g. bone and joint infection, bone infarcts, joint destruction and deformities, stone formation, leg ulcer begin to occur from the age of two and reach a peak in the second decade of life.
- (e) Many die before they reach the third decade.

Haemoglobin diseases SC (not sickle cell) is mild

- (a) Thrombotic episodes result in aseptic necrosis of femoral and/or humeral heads and thus cause joint destruction. They are sometimes first detected in the third decade of life at the routine orthopaedic clinic.
- (b) Thrombotic episodes causing maternal loss are often manifested in females during labour or soon after childbirth.

Therefore the routine haemoglobin genotype test is the surest way of early detection of these conditions. This is done in this and other big hospitals.

Birth defects

Most handicaps resulting from birth defects and birth injuries are detected at birth in local government maternity hospitals. Most of these are reported and referred to the orthopaedic hospital for treatment.

Childhood infections and infestations

Diseases due to childhood infections and infestations, e.g. middle ear infection leading to deafness, eye infection, smallpox and measles leading to blindness, bone and joints infections leading to loco-motor disabilities, and spinal infections including TB are all detected in the first year of life by paediatricians, general practitioners, local government dispensaries, etc. Most of these are referred at the primary health care units described earlier. However, a large number are missed and therefore neglected until handicapping disabilities have occurred before the victims are brought to the hospital at varying ages or varying stages of permanent disabilities.

Spinal diseases, e.g. scoliosis, etc. are detected very late; in some cases not until the curvature or spinal deformity attains 40°. For these and other disabling spinal and foot diseases as well as TB, the orthopaedic hospital has just commenced screening the feet and back of primary and secondary-school children ages 5 to 16. We hope that from this will emerge a pattern of the incidence of orthopaedic and other disabling conditions in the areas around metropolitan Lagos. This exercise will eventually be extended to cover the whole country.

Scope of service

Service at the orthopaedic hospital is rendered to the entire nation and neighbouring African countries.

The professionals involved are doctors (paediatricians, surgeons, etc.), nurses, physiotherapists, prosthetists, radiologists, pathologists, occupational therapists and teachers.

School clinics commenced in the old Western State (now Oyo, Ogun and Ondo States) some few years back. The effort then was mostly concentrated on infestations and infectious diseases but not necessarily on disabling conditions. It is hoped to train personnel to detect disabling conditions and post such persons on the school team before reliable data can emerge nationwide.

Diagnoses today therefore are made either from the consultative clinics of general and specialist hospitals (teaching hospitals in particular), chance findings from laboratory tests, parental observations of very obvious disabling manifestations.

Sports injuries

In many capital cities, sport-medicine clubs are mounting diagnostic centres to detect potentially disabling sports injuries.

Industrial injuries

Industrial clinics and/or dispensaries are also being set up in many urban centres where early detection of disabling industrial injuries and diseases can in future be made.

Road accidents

Detection of disabilities arising from bad road accidents are still made in the big teaching and specialist hospitals.

Traditional medicine

A meeting with Chief Fagbemi Ajanaku, the Araba of Lagos, Managing Director of "Araba-Ni-Baba Enterprises" (traditional medicine division), dispensary and medicine stores,

Chief Araba of Lagos is a first class titled chief in Lagos, renowned and respected in the community for his competence and experience as a traditional healer, a herbalist and druggist who has a reputable record of successful practical midwifery experience in Lagos and its environs. He learned his skill from his father (who was also a successful herbalist) after his secondary-school education.

Early detection of handicaps - pre-natal measures

Chief Araba runs a well organized ante-natal clinic. He is very keen on preventive measures. He indicated that neo-natal jaundice, malaria, and other diseases when confirmed through tests of expectant mothers' vaginal discharge and breast milk are treated promptly by local herbs to circumvent possible post-natal ailments and defects. Gonorrhea confirmed through urine test is likewise treated. According to the chief, pre-natal deafness had been found to be the result of excessive ingestion of codiene tablets by the mother in an attempt to terminate pregnancy.

Post-natal clinic

According to Chief Araba, post-natal clinic examination starts a week after delivery. Eye defects have been detected in some babies a month after birth through close observation of responsive eye movement. He explained that such defects have been treated and cured with local herbs as long as the cornea is still healthy. In the past an antimony preparation (Tiro) was used effectively, but those with defective or faded cornea are beyond the stage where the condition can be remedied.

Community concern

Defects of various kinds are usually detected through observation by parents, grandparents, parent surrogates, neighbours and friends. There is a very strong community spirit.

First ritual bath

The Araba stated that Yorubas by tradition are very keen on the early detection of defects in children - even the most minor defects. A Yoruba newborn baby undergoes a ritual bath given by the oldest woman in the family or in the neighbourhood during which all parts of the body are examined, exercised and massaged to find out any defects, especially in the joints.

Deafness is detected through observation and rudimentary tests between six and seven months. Parents are referred to hospitals for further tests and advice.

Chief Araba claimed that brain damaged babies detected early have been cured in his clinic within a period of 18 months, and mental retardation in two to five years.

Referral of cases from hospitals

Asked whether he makes it a point to refer difficult delivery cases to the hospital for expert treatment he explained that he has never referred any case to the hospital, but on the contrary difficult cases are brought to his clinic from the hospitals. On the question of surgical operations, e.g. big babies, the chief maintained that there had never been any need for them in his clinic, as preventive measures are always taken by the prescription of appropriate native drugs from his dispensary to lubricate the vagina and maintain its elasticity throughout the labour period. He has also been able to help women rushed to his clinic at crucial stages of confinement. There are also certain incantations used to expel retained placenta in cases brought from the hospitals.

A decade of marked progress

The enterprise which was established by the chief's late father, Chief Adesina Awotunde Ajanaku, Araba of Lagos, at the beginning of the century had passed through series of changes due to cultural and social changes in the community. There has been marked progress since 1968 when a research unit was set up to study the different herbs, powders, and ointments used, and to quantify such substances. Concoctions which were formerly taken by "Keke" (cupfuls) are now refined, bottled in concentrated strengths, and properly labelled, with clear instructions for administration in spoonfuls.

Certain herbs are also made into refined tablets of two main sizes, with instructions comprising local terms (e.g. the small sized tablets likened to "Igbe ewure" (goat excreta), and the large tablets likened to "Igbe aguntan" (sheep excreta) for illiterates. Thus a well organized dispensary and medicine store has been established with branches all over Lagos State.

Early intervention programmes

Hospital supportive services

Most of the large hospitals in Nigeria have departments of medical social services; more especially the teaching hospitals. Some are well established while others are just being set up.

One such department is at the University College Hospital, Ibadan, Oyo State.

The medical social service department operates under the auspices of the University College Hospital Board of Management.

The department provides social work services UCH patients and families who are referred to the department by any of the UCH medical/nursing/paramedical staff or by any outside referring agency.

The department is divided into six units: medical, surgical, paediatric, obstetrical, gynaecological and psychiatric.

Objectives of the service

The objectives of the service are: (1) to support the patients and their families; (2) to ensure that they get full UCH services; (3) to help families with their social difficulties especially those stemming from the problems of the sick child; (4) to help the parents plan for the better future of the child. When necessary to liaise with the other members of the extended family and with outside agencies, e.g. school, child welfare clinic, voluntary agency and local authority.

Gynaecological and obstetrical unit

This unit provides social service to referred patients (in- and out-patients). The problems referred include motherless babies, medical condition of the newborn, e.g. hydrocephalus or congenital handicap.

Social work includes intensive case work with parents/extended family and follow-up support of the parents and patient after the patient's discharge.

Limitations of the service

The limitations of the services are as follows:

- (1) not all patients requiring social service are referred to the unit;
- (2) insufficient staff to cope with the case load;
- (3) lack of resources within the department and community for the continued care and education of such children

University of Nigeria Teaching Hospital, Enugu, Anambra State Medical Social Service Department

Objectives

The objectives are similar to those of UCH, Ibadan.

Functions

Cases seen for social case work include the following:

- (1) parents and children with poliomyelitis;
- (2) parents and children with cerebral palsy;
- (3) blind mothers;
- (4) anaemic mothers;
- (5) ignorant mothers;

- (6) mothers with long and difficult delivery;
- (7) mothers with a history of German measles during the first three months of pregnancy.

Parents are helped to find suitable resources for the rehabilitation and education of their children.

Educational intervention: pre-school services

The official primary school age is 6-11 years. The government encourages the provision of private fee-paying pre-primary schools and regulates and controls their operation. It has recently been declared that the medium of instruction should be the language of the school's community. The government realizing the importance of early identification of handicapped children, has stated that "children's clinics will be attached to most hospitals, for early identification of handicapped children, and for curative measures and medical care before and after they reach the age of primary schooling" (National policy on education, section 8, paragraph 56/9). Further, it was recommended by the panel at the workshop on the implementation of the national policy on education (special education) held in November 1978 that "provision should also be made in each state for the establishment of an educational assessment centre". It was also recommended that "a panel of Nigerian psychologists and special educators should work towards providing relevant (Nigerian situation) standardized tests for measuring different capabilities in children to ensure correct placement".

At present, a handful of pre-primary centres and units for handicapped children are being operated, mainly by voluntary organizations and missionary bodies. In some cases they are adjacent to government-established special primary schools.

Pre-School and Child Development Centre, Samaru Department of Education, Ahmadu Bello University, Zaria, Kaduna State

The objectives of the Child Development and Research Centre are as follows:

- (1) to provide a pre-school programme of education for children from disadvantaged homes;
- (2) to provide demonstration facilities for students of the Department of Education studying developmental psychology and learning theory;
- (3) to provide facilities for educational research in the areas of psycho-motor, cognition, social and personality development of children for both students and staff of the Department of Education;
- (4) to offer facilities for interdisciplinary research for the staff of other departments or institutes who may wish to avail themselves of the centre, e.g. Department of Paediatrics, Institute of Education, Department of Sociology, etc.

However, in pursuance of the objectives, the education of the children is of prime importance and takes precedence over research; the individual and group progress of the disadvantaged children must not be hampered by research overloading.

Suggested areas of research

Research/observations - activities will cover the following ground:

Observations: these will include studies by students of developmental psychology and learning theory.

Research

- (1) Studies of ability, motor development, social and personality progress, individual differences, laterality, reading and writing readiness.
- (2) Follow-up studies of the effects of the one-year intervention programme upon subsequent progress in primary school. Research in areas such as factors in the home which affect learning, e.g. diet, verbal stimulation and play.

- (3) Studies of physical development - height, weight, dentition, general health records. It is suggested that each research programme be evaluated and approved by a small subcommittee to avoid overloading and duplication.

A visit was made to the Pre-School and Child Development Centre barely two months after its inception.

There were two classes of five-year old Hausa-speaking children (about 20 in each class). They came from relatively disadvantaged backgrounds in the locality of Samaru and Bama. The parents of the children were contacted by the university through the kind co-operation of the Sarkin Samaru, who has shown great interest in the project.

The curriculum

The curriculum followed was the normal one approved for pre-school children which includes the following activities:

- creative activities;
- drama;
- oral expression;
- music and movement to music;
- manipulation of toys, games like leggo;
- constructive play with blocks and a variety of stories and rhymes (educational toys are both foreign and local);
- individual and group activities - crafts, e.g. plaiting, moulding with plasticine, etc.

The medium of instruction is Hausa. Screening for placement

The centre is located adjacent to a local primary school for follow-up purposes. The official school age is six years. The children were being examined by the visiting dentist and nutritionist. Through dental examination children over five years old were being eliminated from the programme and their places were being filled with those on the waiting list. Children who were eliminated were reluctant to leave.

Therapeutic Day Care Centre, Enugu, Anambra State (voluntary agency)

This is the private effort of a German certified therapeutic pedagogist for an early detection and intervention programme for handicapped children in Anambra State.

In collaboration with the Department of Paediatrics, Psychiatric Hospital, Enugu Special Education Centre, Ogboko, and the Ministry of Education, Anambra State, all children suspected of being handicapped (e.g. speech disorder, hard of hearing, mental retardation, physical handicap, etc.) are referred to the Therapeutic Day Care Centre for medical/pedagogical remedial measures.

Age range and services rendered

The age varies from 0-8 years. Different types of handicapped children are seen, but most are mentally retarded. On referral, series of tests are conducted which include play-audiometry, observations on puzzles, colour discrimination, reading, writing, drawing, painting, plasticine-moulding and social interaction with other children. The tests may take up to two hours, after which a diagnosis and recommendations as to measures to be taken are made. Some children are referred to other centres, e.g. orthopaedic hospital, general medicine, etc. Some children who live in the locality attend daily for remedial sessions of speech and play therapy, behaviour modification, reading, writing, etc.

Prescribed lessons

- (1) Parents are involved in the educational/treatment programme.
- (2) For those who come from afar, prescribed lessons are demonstrated to the parents or guardians for follow-up action pending the next appointment. Some come from neighbouring states.

Limitations of the programme

There are no standardized tests.

Test standardization project

It was indicated that the centre, in collaboration with the department of the University of Nigeria Teaching Hospital, is now embarking on a standardization project for developmental and intelligence tests for pre-school and school-age children.

Shortcomings

Apart from the director, there is only one assistant with elementary school training learning on the job. The other major problems are accommodation and transport. Presently the centre operates in a garage specially reconstructed for the programme. Efforts are being made to arouse government interest in the project.

Physically handicapped children

According to statistics on existing special schools in Nigeria there are nine special institutions for physically handicapped children, three of which are pre-school oriented.

Ile-Anu Pre-School Unit 4-6 years (Anglican diocese)

Referrals come from the usual sources and especially from hospitals and the Institute of Child Health. The school caters for the educational and medical needs of 12 physically handicapped children. This is the only school of its kind for the physically handicapped children in Lagos State.

Parent guidance and involvement

Parents are given directives on the care and management of their physically handicapped children. Individual counselling on specific problems, e.g. over-protection by the mother, rejection by the father, poor home conditions, unavailability of transport, etc.

Advice on exercise is given by the physiotherapist in charge. Some parents recount their experience with quack doctors prior to the child's admission, others tell success stories of the school's intervention programmes - thus encouraging other parents to bring their handicapped children to the school.

Ile-Anu Pre-School Unit acts as a feeder to Atunda Olu School (6-11+ years) for physically handicapped children of average intelligence.

Personnel involved include teachers, a visiting doctor, a physiotherapist, a health nurse, auxiliary nurses and teachers' aides.

Limitations

Dearth of trained personnel, building equipment and transport.

Educational intervention for the deaf, Wesley School for the Deaf, Surulere, Lagos State

Children are referred for educational intervention after diagnosis in hospitals and other centres. Some are brought in by parents, others referred from ordinary schools.

The devices for testing hearing acuity in deaf children in this school include:

- (a) rattle toys of different frequencies;
- (b) pure tone audiometer;
- (c) speech master or trainer.

The aim of the audiometric test is to find the average hearing loss of a child in both ears, which will determine the type of individual hearing aid suitable for that particular child.

Speech tests are done to detect the child's ability to hear and discriminate between spoken words. This helps the teacher in the classroom to know how far the child learns through hearing and lip-reading.

Nursery unit

After detection, the child is placed accordingly. If he is under six years old, the parents have the choice of either sending the child to the nursery unit (where fees are paid) or receiving advice on how to help the child at home pending his primary school registration. Children with multiple handicaps are referred to the child guidance clinic or the teaching hospital for further investigation and possible help before placement in nursery school.

Early detection calls for early education, hence the establishment of a nursery unit (age 4-6 years) under the auspices of the National Society for the Deaf.

The personnel involved are teachers, audiologists, guidance and counselling officers and clinicians.

Educational intervention for the blind

Although the official primary school age is 6+ years quite often some parents have unavoidably strayed into special schools for the blind with their young ones as they have no alternative or because they needed guidance. In Pacelli School for the Blind, Lagos State, some blind children are brought in by neighbours who were concerned by the unskilled manner in which the children were handled at home. Some of these children are admitted for necessary care and stimulation.

Parental guidance and training

Visually handicapped

This is done effectively in some schools. Parents of pre-school blind children receive a great deal of practical help on management, e.g.: (1) how to obtain available resources; (2) toilet training; (3) dressing; (4) eating habits - in fact training to acquire the basic skills corresponding to the child's age; (5) the other senses must be trained to make up for the one which has been lost, and this must be done in the early years; (6) the blind child should be taken out along with the others to see friends and relatives - this will promote his sense of belonging; (7) he should be given a chance of free movement - removing all obstacles from his way. Over-protection is as bad as rejection.

Parents also receive hints on the early detection of visual impairment.

Early signs of visual impairment

- (1) Frequent stumbling or falling over obstacles.
- (2) Holding objects too close to the eyes when reading or watching.
- (3) Frequent crying and burying of head under pillows/cushions whenever light is put on.
- (4) Squint or astigmatism.

Education of parents through parent/teacher associations

It has been observed that parent education is very important, since unlike parent education for normal children, it becomes a service requested by parents, because of the serious problems with which their children present them. Hence they are usually highly motivated to change their children's behaviour and if necessary even their own (Tzard, 1976).

A strong forum for the dissemination of information for better awareness is the education of parents through the parent/teacher associations. Each special school has its own association where views are exchanged and parents learn more about their handicapped children from teachers and other professionals.

Parental guidance of the deaf

Concerning the deaf, parental guidance and tutoring schemes are provided in special schools for the deaf, and parents are encouraged to make use of this opportunity so as to teach their children how to acquire language. In Oyo State an induction course once run for teachers and parents proved highly successful. In Plateau State Ministry of Education, pamphlets containing valuable information are printed and distributed free to parents, teachers and other members of the public. These are reprints from the publications of the National Association of Hearing and Speech Agencies, United States of America. They cover such topics as:

- (1) dos and don'ts for parents of deaf children;
- (2) tips on the onset of deafness for parents and teachers;
- (3) the ABC of otology;
- (4) do you know how important hearing is?
- (5) hearing loss - hope through education:
 - the importance of early detection;
 - tips on onset symptoms;
 - alleviation through special education;
- (6) simple courtesy and the hard of hearing:
 - helpful hints for the general public.

Child guidance clinic parents' meetings

At the inception of the child guidance clinic in Lagos in 1964, parents were encouraged to attend quarterly meetings conducted by the staff. Parents were given first hand knowledge of the functions of each unit of the clinic by the specialists in charge: the educational psychologist, the social worker, the remedial educator and the play therapist. Parents asked pertinent questions about their handicapped children, and views were exchanged on common problems. Parents developed more confidence in themselves, and were assisted and encouraged to help one another. Helpful hints and hand-outs were usually distributed.

Sickle cell disease club

This club caters for sickle cell patients and/or their parents, together with interested doctors and members of the public.

The club, initiated by the Lagos University Teaching Hospital (paediatric section), is concerned with the exchange of information, research on recent discoveries, etc. It also gives lectures to schoolchildren highlighting the prevalence of the disease and the importance of choosing the right partner in marriage.

Information and education for better awareness

There is no specific programme available at present for creating wider awareness among the general public of the importance of early detection of handicaps in children. During the last decade the emphasis has been on the acceptance of the handicapped child by society. As mentioned earlier, some states have well-established programmes with full government support, others are just starting, while a few states are yet to be convinced that it is necessary to cater for their handicapped children. However, all who are connected with the handicapped in one way or another seize every opportunity to get the message through individually or in groups, emphasizing the strengths rather than the weaknesses of the handicapped child.

An important aspect that has generated public awareness of the importance of early detection and early intervention has been the performance of the handicapped children themselves in their school programmes (parents' day, activities, music and drama - nativity play, etc.) and their participation in public programmes with normal children, e.g. children's national day celebrations (march past, sports competition, etc.), national arts competition, International Year of the Child programmes, radio and television programmes. There is a unique drama performed by the Wesley School for the Deaf portraying the successful progression in communication at different

stages of intervention, thus awakening public awareness of the importance of early detection and early intervention.

Public enlightenment through workshops, seminars and conferences

Through the years various workshops, seminars and conferences have been conducted by the Ministries of Health, Education and Social Welfare; also by the Departments of Special Education in the University of Ibadan, and quite recently in the University of Jos. National and state associations for the handicapped also have their own topics ranging from the importance of early detection of handicaps in children to handicapped persons and the labour market. More people are reached through the mass media - radio and television programmes.

Annual health education seminar for primary-school teachers

In Lagos State, the annual health education seminar for primary-school teachers usually draws a large crowd, including parents and professionals. In the recent past themes of these seminars have included: nutrition; sanitary conditions in schools; preventive medicine; the care of the eyes; care of the ears, nose and throat.

Seminar on the care of the eyes

In 1974, topics under "the care of the eyes" included: the causes of blindness in Nigeria; abnormalities in the eyes of children; common eye conditions among schoolchildren with emphasis on the control and prevention of infections caused by insanitary habits; the importance of nutrition in maintaining good sight; the care and training of the blind child.

The topics are treated in depth by specialists in each area - with full participation from the audience. One of the objectives of the seminars is to enable participants to recognize the need for early treatment and early correction of abnormalities.

In 1975 the theme of the annual health education seminar was "care of the ears, nose and throat". Papers were presented by specialists in each core area on the following topics:

the normal ear, nose and throat structure and function; natural preventive functions and their preservation;

common abnormalities of the ear, nose and throat. Other causes of deafness;

the necessity of early detection of deafness. The problem of the child with undetected deafness;

the responsibility of the teacher in ear, nose and throat care. The recognition of deafness and the recognition of the handicap of deafness, partial or complete;

the work of the School for the Deaf. The problems of the deaf child.

About 300 teachers and some parents participated actively.

World Health Day celebrations

The World Health Day celebrations in 1975 were sponsored by the Federal Ministry of Health. The theme chosen was "foresight prevents blindness". There was a series of lectures on the problem of blindness as it relates to Nigeria; its causes and prevention both by government and community efforts. A comprehensive exhibition was mounted to educate the general public on blindness and its prevention. Consultant ophthalmologists organized vision screening of the public, and hundreds of people took advantage of this. Hand-outs were made available and small souvenirs were also distributed. Those who contributed to the success of the exhibition included the Lagos City Council Health Department, firms in the private sector and voluntary and government organizations for the blind.

Training of teachers and other special education personnel

Commonwealth teachers' bursary awards

The first few Nigerians trained in the field of special education received their training in institutions abroad; starting from the late fifties, some trained teachers were sponsored by voluntary organizations whilst others benefited from the Commonwealth bursary awards sponsored by the Federal Government of Nigeria.

Federal government bursary award (special education)

The Federal Ministry of Education in its Third National Development Plan (period 1975-1980) made provision for the training of special education personnel in institutions abroad, at undergraduate, graduate and postgraduate levels. Some of the beneficiaries of the 1976-1977 award have since returned home after successful completion of their different courses. Eighty received awards for 1977-1979. The exercise continues.

Federal Advanced Teachers' College for special education

The Federal Advanced Teachers' College for special education established in 1977 offers a three-year training course for teachers of handicapped children. When the college is fully developed, teachers will be able to specialize in the teaching of children with all categories of handicaps dependent upon the needs of the sponsoring state. The college is expected at this initial stage to have an output of about 100 students each year, gradually increasing to a maximum of 500 by the end of 1980.

The policy also provides for the inclusion of some aspects of special education in the course content of all teacher-training colleges, thus making it possible for all trained teachers to have some basic knowledge of special education to enable them identify and assist handicapped children in ordinary primary schools.

The government encourages and gives financial support to universities for the development of departments of special education, which run courses at all levels. It also finances in-service training courses organized by such universities for teachers in special education. Workshops are also organized by the Nigeria Educational Research Council.

Most state governments now include special education in the state scholarship awards.

Awareness of teachers of the problems of special education

Apart from organizing and attending seminars and workshops on themes relating to the handicapped, teachers and other personnel in special education and allied fields have forums where information is disseminated. Views are also exchanged on common and isolated problems affecting the pupils, the schools, the teachers and the parents. Policy matters are discussed and recommendations made to the government at state and federal levels. All these activities come under the umbrella of the following recognized associations:

- National Association for the Handicapped (with state branches)
- National Advisory Council for the Deaf
- National Advisory Council for the Blind
- Association of Teachers of the Handicapped
- Society for the Care of the Deaf.

Members include teachers of the handicapped and all supportive services personnel, e.g. audiologists, clinicians, speech therapists, psychiatrists, psychologists, guidance counsellors, physiotherapists, social workers, doctors, paediatricians, lawyers, judges, teachers in ordinary schools, university lecturers, representatives from the labour market, members from different walks of life, and a few handicapped persons. There is also an association of the deaf. The main objective is the promotion of the welfare of the handicapped in all its ramifications.

Training of traditional birth attendants

Before the advent of institutionalized modern medicine traditional medicine was practised in Nigeria. Through the years, traditional healers, herbalists, midwives, and birth attendants have played vital roles in the health of the nation. They have been internationally recognized and accepted with due regard to their useful role in the community and their contribution to maternal and child care services, especially in rural and underprivileged urban areas.

Noteworthy is the acute shortage of all categories of trained health manpower in Nigeria, especially in rural areas where the incidence of births is high. According to a WHO medical officer the population of Nigeria was estimated at 74.7 million in 1975, while the number of registered midwives was 19,175, giving a ratio of 35.4 registered midwives per 100,000 population (approximately 1 midwife per 4,000 population), as against an acceptable ratio of 50 registered midwives per 100,000 population (1 midwife per 2,000). With the increase in

population, estimated in 1979 at 82 million approximately, and relatively few midwives graduating since 1975, it can be safely stated that the above ratios have not changed meaningfully, and the situation is not likely to improve in the foreseeable future. It is therefore admitted that traditional practitioners scattered all over the country will continue to play a vital role in the community as regards maternal and child care for a long time to come.

For this reason, efforts have been made to train traditional birth attendants in order to upgrade their skills and improve their services so that they can be integrated into the basic health service scheme, since this cadre of primary health care personnel caters for about 75 per cent of the rural population.

Araba-Ni-Baba Enterprises; training of traditional birth attendants

In traditional medicine, the training of traditional birth attendants takes priority over other projects. The director, Chief Araba, indicated that a syllabus has been prepared, and arrangements are being made for textbook production, etc. The next step is to establish a training school for interested young people in the community, requirement for admission being suitable temperament and potential, coupled with a good educational background - minimum S.75 certificate (after full secondary-school education) or its equivalent.

Chief Araba will hopefully make early detection of handicaps in children a requisite in his training course.

Conclusion

This case-study has revealed that there is practically no structured programme or provision for the early detection of handicaps in children, even though there is a policy statement to the effect. However, some routine health programmes covering maternal and child health services, hospital paediatric services, school health services, and orthopaedic hospital services revealed that such cases are identified and referred at times to the appropriate clinic within the teaching hospital. Some of these health programmes have been strengthened by the introduction of the basic health scheme by the Federal government in the Third National Development Plan (period 1975-1980) when over 1.7 million Naira were allocated for health programmes. Efforts are being consolidated to bring preventive diseases under control throughout the federation. The non-availability of special facilities and personnel for early detection and treatment is re-echoed throughout this case-study. Screening of infants and children are reported in a few hospitals and institutes of child health. The keen interest shown by the few professionals in these hospitals, is commendable. Traditional medicine is seen in a better perspective, and this is very encouraging.

Early intervention

Social work takes place in some teaching hospitals. Again, the dearth of personnel presents a problem. A few programmes offer educational intervention for the handicapped at the pre-school level, though the official school age is 6+ years. These vary according to the needs of each community. Supportive services rendered to the handicapped and their families at the child guidance clinic, child development centre, therapeutic day centre and psycho-educational clinic in different states, though inadequate, are found to be very essential. The few specialists involved show competence and interest. Universal free primary education, introduced in September 1976, opened up new avenues for the early detection of handicaps and immediate referrals during the registration of school-age children (6+ years). Lagos State has a comprehensive school health service of 30 years standing services in other states, e.g. Kaduna State, are being established. Acute shortages of drugs, protein supplement, first aid equipment, transport and trained personnel prevent progressive work. The establishment of special schools, centres and homes for handicapped children throughout the federation, starting from the mid-forties, has made educational intervention a reality.

Information and education for better awareness

As in other countries, superstitions and taboos have created a barrier between the handicapped and the community. This is accentuated by the cultural traits and the diversified nature of our ethnic grouping. The gradual transition to the present state of awareness and acceptance of the handicapped is commendable. Programmes mounted by the Ministry of Health in a few states for information and education for better awareness among the general public have usually been centred on preventive measures.

The Federal Ministry of Education carries the overall responsibility for handicapped children. The national policy of education has clearly stated the joint responsibilities of the government and the people of Nigeria to the handicapped. Workshops, seminars and conferences feature prominently among professionals and the general public. Advantage has been taken of the mass media in both urban and rural areas. Professionals, especially teachers, play a vital role in the education and guidance of parents of handicapped children. Non-congenital cases are first detected by parents, especially mothers, grandmothers and neighbours. Parents are actively involved, but not very vocal in their demands for services.

The training of traditional birth attendants and other auxiliary health workers will go a long way in reducing the acute shortage of manpower, especially in rural areas. Local people will prove invaluable, especially in the northern parts of Nigeria, where for example a minimum of four interpreters are needed at a clinic session attended by 500 mothers. It appears that there is no incentive for preventive workers who are exposed to hazards and long hours of work.

It has been observed that no special attention has been paid to health visitors, now popularly known as home visitors for the important role they play in their early contact and involvement with new-born babies and their families.

The Federal government has taken up the challenge to strengthen training programmes for teachers and other personnel involved in the education/training of the handicapped. If the present exercise continues in the local and overseas institutions the position will improve tremendously.

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SRI LANKA
Ministry of Education

Introduction

Sri Lanka has a national and cultural identity which can be traced back to the founding of the nation 2,500 years ago in the sixth century B.C. by colonists from Northern India. The population of the country, which has an area of only 25,000 square miles, now exceeds 14 million. Concern for the health, well-being and education of Sri Lanka's inhabitants also has a long history, dating back to the introduction of Buddhism to this land in the third century B.C. The care of the sick and the maimed became a public concern, and hospitals were established. Although foreign invasions destroyed the institutions which grew out of these concerns, they remained ingrained in the strong cultural traditions that were forged over the centuries of history. Thus when the people gained some measure of independence these concerns were given the highest priority. Sri Lanka gained some measure of self-government in 1931 with the grant of universal franchise. Health and education services subsequently expanded rapidly; free government-operated health services became universally available, and education was made free from kindergarten to university in 1945. The impact of these services can be gauged from the following indicators. Although the country is poor, with the per capita GNP just exceeding US \$200, the general mortality rate was 8.0 in 1976 while the infant and maternal mortality rates were 45 and 1.0 per thousand respectively. The expectation of life at birth (1970-1972) is 64.2 for males and 67.03 for females. The literacy rate now exceeds 80 per cent. However, when compared to the expansion of general health services and general education services, the attention paid to those classed as handicapped may appear inadequate. Yet concern for the education of the handicapped is indicated by article 9 of the Parents' Charter issued recently by the Ministry of Education:

"Parents have the right to be informed immediately of any physical or mental weakness of the child, whether apparent or revealed at a medical examination, as well as to admit the handicapped and the backward to schools or special institutions where educational opportunities are provided for them to gain their rightful place in society as useful citizens."

Pre-natal, post-natal, maternity and child health services are provided through a well-developed and widespread network of institutions operated by the Ministry of Health. Privately operated services are also widely available. Pre-natal, post-natal and maternity health services are provided through government maternity hospitals, municipal health institutions and village dispensaries. Child health services are operated by special children's hospitals and wards of the government hospital system. Clinics operated by the out-patient departments of the hospitals cater to these needs on a large scale. Grass-roots level workers such as public health inspectors, public health nurses, midwives and health educators, as well as voluntary workers, provide services even on a house-to-house basis. Some of these services, and family planning services, are provided through a family health programme. A parallel health service based on indigenous medicine is also widely available.

A school health service is also available, although not on a 100 per cent basis. In cities like Colombo this service is operated by the school medical officer. In the provinces, the medical officer of health is responsible. Children are routinely examined in grades 1, 4 and 7.

Since independence in 1948 a number of commissions and special committees which examined the island's problems of general education have made clear to successive governments the necessity of involvement in the field of special education. But the problems of general education, being of greater magnitude, received priority, so that the provision of special education to handicapped children continued to be in the hands of religious bodies or private organizations. However, a change of attitude occurred in the late sixties, especially after the Unesco General Conference in 1964, which passed a resolution urging governments to plan for the special education of handicapped children.

Accordingly the Ministry of Education invited a consultant from the AFOB (American Foundation for Overseas Blind) to examine and report on the education of visually handicapped children in the country. The result was the production of the Jean Kenmore report on "Education of the blind in Ceylon". The recommendations made therein were accepted and implemented in successive steps from 1968. This initiated the integrated education programme for visually handicapped children.

In 1971 a committee on special education consisting of local experts and a foreign consultant further investigated the problems of special education. This committee recommended a number

of changes and innovations. One of these was the establishment of the special education unit at the ministry. This was immediately implemented. Two other important recommendations were to establish:

- (a) a training programme for teachers for hearing-impaired children;
- (b) the establishment of special units for hearing-impaired children in state day schools.

The training of secondary-school teachers commenced shortly afterwards. To assist the teacher-training programme, a British expert was called in. Besides providing expert advice to authorities at teacher-training colleges he assisted the special education unit with a very comprehensive report on the education of hearing-impaired children. This unit now operates under the supervision of the Deputy Director-General of Education, schools organization, and is responsible for the control, planning and implementation of special education.

Ways and means of introducing a teacher-training programme for the education of mentally retarded children were examined by the unit, but due to the non-availability of qualified personnel the special education unit had to wait a few more years. After the visit of a British expert, Professor McGregor, the ministry was able to obtain the services of Mr John Hughes for two years. He submitted a report on the education of mentally retarded children and organized a scheme at Colombo University to train 14 teachers at postgraduate level. He also conducted training programmes for the teaching of educationally subnormal children.

The following year the teacher-training programme for the education of hearing-impaired children began functioning. To assist this training programme the services of a British expert, Michael Reed, were obtained. Besides lecturing for a few months at the Maharagama Teachers' College he helped the ministry with a very comprehensive report on the education of hearing-impaired children.

The work of these experts and the publication of their reports led to further awareness of and interest in special education and the needs of handicapped children in Sri Lanka. The result was the appointment in 1976 of the Special Committee of Ministry of Education officials to examine existing educational provisions and to recommend improvements.

There are at present two types of special education programmes in operation throughout the country. Of these, the integrated education programme in regular schools is directly under the administration and control of the Ministry of Education. As for the other, the residential special schools programme, the ministry supervises the teaching and assists these schools with financial allocations for the payment of teachers' salaries and for maintenance.

For purposes of providing special education, the Ministry of Education recognizes the following categories of handicapped and exceptional children:

- (i) children with intellectual limitations (mentally retarded children);
- (ii) children with impaired vision (blind and partially sighted children);
- (iii) children with impaired hearing (deaf children and those with partial hearing);
- (iv) children with language and speech problems;
- (v) children with behaviour problems (the maladjusted, etc.);
- (vi) children with non-sensory physical impairment (the crippled);
- (vii) children of superior intellect (gifted children).

A systematic census of handicapped and exceptional children in Sri Lanka has not been attempted. Yet estimates of the prevalence of such cases in each area have been arrived at partly on the basis of sample surveys carried out both by government departments and voluntary agencies, and partly on the basis of figures published in countries such as the United Kingdom and the United States of America.

Estimates of school-age children in the island requiring special education, calculated on an estimated school-age population of 3,857,000 are as follows:

Type of handicap	Available local estimates	Estimates of U.S. percentages	Estimates for Sri Lanka based on U.S. percentages
Mentally retarded children	115,710	2.3	88,700
Children with impaired hearing	22,200	0.6	23,142
Children with impaired vision	3,569-5,400	0.09	3,471
Children with behaviour problems	-	2.0	77,140
Children with language and speech problems	-	3.5	135,000
Children with neurological and non-sensory physical impairment (crippled, epileptic, etc.)	-	2.0	77,140
Children with superior intellect	-	2.0	77,140
Total number of handicapped and exceptional children	-	8.0	308,560

Source: Report of the Committee on Special Education for Exceptional Children.

The various services provided for handicapped persons are a major responsibility of the Department of Social Services, Department of Probation and Child Care, and the Social Service School, all of which come under the Ministry of Social Services.

The following are some of the main functions of the Department of Social Services:

- (a) training and rehabilitating people with physical disabilities;
- (b) assisting organizations which train and rehabilitate people with physical disabilities;
- (c) rehabilitating the disabled and placing them in permanent jobs;
- (d) rehabilitating persons who are in receipt of public assistance, and their dependants.

Some of the functions of the Department of Probation and Child Care are as follows:

- (a) understanding the nature of their delinquencies, providing remedies, and rehabilitating them;
- (b) giving protection and security to destitute and abandoned children;
- (c) registering and financially assisting organizations which are engaged in the above activities.

Early detection

Health services

Most of the early detection of handicaps in children is made by the many thousands of para-medical workers and private medical practitioners, both Western and Ayurvedic, working throughout the country. The ante-natal, post-natal and child welfare services provided by the chain of clinics, either institutional or field based, run by the Ministry of Health, also account for a high percentage of early detection.

At present there are 103 health units forming the network of public health services in Sri Lanka. Each of these health units serves a population of about 80,000 to 120,000. Public health inspectors, public health nurses and public health midwives working for the health units are headed by a medical officer of health.

There are 998 public health inspectors in service today. The field activities of the public health inspector include encouragement of latrine construction, inspection of private premises, rural sanitation, inspection of trade premises, smallpox vaccination and health education. In the course of his duties the public health inspector has the opportunity of meeting the members of many of the households in his area, and he is also expected to organize group talks in the villages and schools. There are 245 public health nurses working under the 103 public health units. Their duties fall into three categories: pre-natal, post-natal and general.

Pre-natal - in the course of her home visits and at clinics the nurse becomes acquainted with the people in her area. She examines expectant mothers and advises them on the management of pregnancy, parturition and the puerperium.

Post-natal - besides supervising puerperal care, advice is given on the feeding of the infant and the need for post-natal examination of the mother and regular medical examination of the child.

General - the nurse acts as a health educator. She is concerned with the care of infants and pre-school children at clinics and at home visits and assists in school health work in her area.

As the public health nurse's work brings her into intimate contact with the families in her area, she has adequate opportunities to contribute to the improvement of the health of the infants, pre-school and schoolchildren in her area.

Midwifery services, both domiciliary and institutional, are a very important aspect of the public health service. In making parents aware of handicaps in children they comprise a very useful category of paramedical workers who come in very close contact with the mothers. There are 2,141 field midwives and 1,453 institutional midwives in service today. The essential duties of field midwives include:

- (i) attendance at confinements in her area;
- (ii) care of the mother and child for ten days after delivery;
- (iii) health education before and after confinement;
- (iv) assistance in running welfare clinics;
- (v) home visiting.

The duties of the institutional midwives are similar to the above with the exception of home visiting; and the period of post-partum care depends on the period of the mother's stay in hospital.

The population per midwife varies from about 3,000 in rural areas to about 12,000 in urban areas, where more maternity homes and hospitals are located.

Medical care of a large percentage of the population is also provided by private physicians practising either Western or Ayurvedic medicine. Every village in Sri Lanka, however small, has at least one Ayurvedic practitioner.

The family health programme of the Ministry of Health, whose overall aim is to raise the health standards of the people, operates 1,409 maternal and child health clinics and 401 polyclinics in various parts of the country. A wide range of skills and services are provided through the polyclinics in a concerted attack on the many facets of the problem of the health of the population under the programme of integration of curative and preventive services. A work force of 2,229 medical officers and 1,059 assistant medical practitioners serve the people through these MCH clinics.

One of the subprogrammes of the family health programme is the health education subprogramme, under which falls the family health component of health education. The Montessori school group and lower secondary school group are two of the five groups which come under the health education subprogramme.

However, emphasis hitherto appears to have been on the provision of curative services, while preventive services have not been adequately developed and expanded. Where the curative and preventive services function as two separate entities, the result has been an unnecessary

duplication of services and this has adversely affected the development and improvement of health services. Appropriate integration of these two services could provide a rich and varied fund of resources to draw on for the development of the country's health services.

The school health service

In Sri Lanka the school health service plays a vital role in the early detection of handicaps in children.

Yearly routine medical inspections are carried out in grades 1, 4 and 7. All children in these grades are screened by medical officers.

The school medical officer supplies the principal with pupils' record sheets before the date of the medical inspection. These record sheets are distributed among the relevant class teachers, who enter details of each child: age, weight, height, midarm circumference, cleanliness, attendance, intelligence, behaviour, deformities, serious accidents, other abnormalities, etc.

The pupils are examined by the school medical officers in respect of nutrition, vision, hearing, speech, nose defects, heart, lungs, abdomen, erosion of tongue, tonsils, lymph glands, orthopaedic defects, angular stomatitis, nervous diseases, skin diseases, scabies, pediculosis, smallpox vaccination, BCG vaccination, etc. Dates of immunization for tetanus, polio (oral) and typhoid are also ascertained.

Education

The Ministry of Education has always held the view and emphasized the fact that early detection of handicapping conditions in children is very important for the proper provision of appropriate educational facilities. With this end in view the special education unit organizes surveys to detect handicapped children among school and pre-school children. But the unit is reluctantly compelled to limit such annual surveys to a few areas. The determining factor for the selection of such areas is the availability of trained teachers to serve such children once they are detected and enrolled in school.

Procedures now in operation for early detection were initiated in 1968 with the inauguration of the open education programme for visually handicapped children.

- (i) The Ministry of Education issues instructions, through the Regional Directors of Education, to circuit education officers and principals of government schools, to collect the necessary data. This circular, sent out normally in March of each year, comprises the following:
 - (a) the names of the districts to be surveyed;
 - (b) the type of personnel from whom information may be obtained;
 - (c) biological data on each child detected in the process;
 - (d) the broad category of handicap;
 - (e) educational facilities available in the area in which the child lives.

The Regional Education Departments are also expected to contact the other departmental officers working in the areas selected for such surveys. But this liaison normally is undertaken by the regional field officer in special education.

- (ii) There are at present five field officers in charge of special education at the regional level. They visit the medical officer of health of the region and seek his assistance and co-operation in meeting his field officers - namely public health inspectors, public health nurses and midwives. Since these categories of persons are knowledgeable on matters of health, the information they give is considered reliable and significant.
- (iii) The special education field officers meet the assistant government agent⁽¹⁾ of the selected district and seek his co-operation in collecting the required information through his team of village level officers - namely the Grama Sevaks.

(1) Administrative officer responsible for the subunit of an administrative district.

- (iv) Sri Lanka has a number of voluntary organizations working for the welfare of the handicapped. The All Ceylon Council for the Blind, the Council for the Deaf, the Association for Mentally Retarded Children, and the Sarvodaya Movement are among the most helpful to the ministry in its work of early detection. The eye camps held by the Council for the Blind in rural areas are so popular that attendance exceeds the limit that eye surgeons screening defects could handle daily. As a result of these examinations a large number of cases are detected as needing special education intervention.

When the information on the location of handicapped cases and their biological data reaches the ministry in August of a particular year, the first stage of the survey is completed.

The second stage commences with the analysis of the data at the Ministry of Education. School-age children reported as visually handicapped are the first category to receive attention. They are grouped according to their places of residence and are requested to attend a meeting at a place named by the special education unit on an appointed day. To this meeting a team of officers is sent. It comprises the following officers:

- (a) a field officer in special education;
- (b) an eye surgeon or an optometrist;
- (c) a lecturer from a teachers' college (he acts as a psychologist);
- (d) a few trainee teachers attending the course in the education of visually handicapped children.

The duties of this team are varied:

- (a) to screen the children medically and refer them to local clinics for necessary medical care;
- (b) to evaluate the developmental skills of the children;
- (c) to study the social background of their families;
- (d) to explore possibilities of enrolment in schools in the region of the children's home.

If the Ministry of Education is satisfied that there is a sufficient number of school-age children on the basis of the findings of the above-mentioned team, the ministry appoints a specialist trained teacher.

It is his responsibility to:

- (a) enrol the children in schools close to their homes;
- (b) teach them Braille if blind, or provide special instruction if partially sighted;
- (c) consult class teachers regarding integration;
- (d) obtain special assistance for poor children;
- (e) arrange for free glasses from the local education department for poor children with refractive errors;
- (f) enrol children in residential schools if he finds that such children cannot be accommodated in the local integrated programme due to transport difficulties, difficulty of access to schools, or unfavourable home conditions.

If there are pre-school children he is expected to do home counselling. "Home counselling" is twofold: it consists of training the basic developmental skills of the child and counselling the parents regarding proper attitudes to, and the upbringing of, a handicapped child.

This teacher works on an approved itinerant programme. This method of screening and detection is unfortunately not available to hearing-impaired children, who are more numerous than vision-impaired children. Cases of hearing impairment are normally referred to the

Audio Centre in Colombo for examination and testing of the degree of hearing. If the child is of school age he is referred for enrolment to a residential school or to a special unit in a regular school if one is available close to the child's home.

Reported cases of mental retardation and physical deformities are treated in a similar way. In these two categories the numbers reported are very high compared to the number of vacancies in residential institutions catering for their educational needs. Hence the Ministry of Education at present has no alternative but to collect the data and keep them on record.

As for cases reported as maladjusted and educationally subnormal, if such cases are already in schools, they are put into the charge of special education services and are provided with remedial teaching.

In 1976 the ministry sent to all schools in the country a leaflet explaining to teachers the diseases and symptoms of diseases that may be detected in children under their care so that any development could be arrested at the very earliest stage before it reaches a handicapping stage. This information has helped many teachers already to detect eye diseases and a few such children are now cared for under the integrated education programme for visually handicapped children.

With the posting of a trained specialist teacher to a new school the ministry holds a workshop for the principals and class teachers of the schools he serves. At this seminar the principals and teachers are informed of the programme and the necessity of the early detection of handicapping conditions in children.

Social services

The Ministry of Social Services indirectly takes steps to detect handicaps in children. This is done through the National Councils for the Blind and Deaf. For example, eye camps are operated by the National Council for the Blind. The Department of Social Services assists them with funds. There is also a doctor attached to the National Council for the Blind who is reimbursed by the Department of Social Services. The Council for the Blind selects one area and screens schoolchildren from grades 1-5 in all schools in that area. In 1978, 11 eye camps were held and 7,500 children were screened. It was observed that about 2,250 children had eye defects.

Early intervention

Health services

All cases detected by paramedical workers are directed to the maternity and child health clinic operating in the area.

The maternity and child health clinics, private practitioners and rural hospitals refer all cases detected to the specialist clinics operating in the 25 base or general hospitals located in the principal provincial towns or the children's hospital in Colombo.

Specialist facilities are concentrated in the provincial and base hospitals and are not available in the district hospitals, which are more accessible to the vast majority of the rural population. This has resulted in overcrowding of base and provincial hospitals. This overcrowding sometimes prevents parents from bringing the referred handicapped child to the hospital in time. Another reason for delays in intervention may be the low income level of the parent, which prevents him from bringing a referred handicapped child to a hospital in a distant town.

The school health service

Once handicaps in children are detected by the school medical officers during their routine medical inspections, they give clinic attendance cards to the children concerned, who are referred to various clinics depending on their defects.

Children with major defects are referred to special clinics. For example, children with eye defects are referred to eye hospitals/eye clinics. School medical officers operate subsidiary clinics at other central locations and treat children for minor defects. Even if not referred by a school medical officer, any child brought to a clinic run by the school medical officer receives necessary treatment and advice.

Education

Special education facilities for handicapped children have been made available in a variety of contexts, but to a limited extent. They include:

- (1) integrated education programmes in day schools;
- (2) residential special schools;
- (3) special class units in regular schools;
- (4) home instruction for pre-school children;
- (5) residential homes for mentally retarded children.

Mention has already been made of the home counselling services provided by specialist itinerant teachers. These teachers are specially qualified to teach visually handicapped children, and have also been given a sufficient background knowledge of other types of handicaps. Thus they are equipped to handle cases in the early stages. Through this service the Ministry of Education has been able to intervene early in such cases. In the absence of a pre-school education system or a parent guidance service, the Ministry of Education has been able to bridge the gap between the school and the home through these home counselling services. In Sri Lanka, as in many parts of the developing world, the parents of handicapped babies know very little about bringing up such children and regard them as hopeless cases. Thanks to these home counselling services such parents have been able to overcome the feeling of hopelessness. The ministry has published in translation (Sinhala) a monograph entitled "The pre-school child who is blind" and this has been distributed among parents. There is a similar publication entitled "The mentally retarded child" distributed among the parents of mentally retarded children.

The age of admission of children to schools in Sri Lanka has been changed from time to time with changes in government policy. But the age of school admission of handicapped children remains at four years nine months as of 31 January, because early intervention in their case is considered very necessary.

In Sri Lanka the handicapped child who enters grade 1 of his school at four years and nine months receives his education free through all the levels: primary, secondary and higher (if he continues his studies). The handicapped child is further encouraged to enter school by the provision of free board and accommodation if he is in a residential school, or a social services department grant to his parents if he is in the integrated programme.

Curricula in special education

The curricula for each area of handicap has to be different according to the needs and limitations of each type. Thus visually handicapped children follow the same curriculum as normal children, with a few modifications. They compete with their normal peers for scholarships and sit the General Certificate of Education (Ordinary Level) and Advanced Level Examinations; a lucky few even gain admission to universities to continue their studies in arts subjects or in law. The curriculum for the hearing-impaired is still being developed. The first level curriculum has been completed and is being taught in schools. For the second level, a curriculum committee will be set up in the near future.

Non-sensory physically handicapped children also follow the normal curriculum and sit the same examinations.

In homes for mentally retarded children the curriculum consists of: training in daily living skills, toilet habits, and the three Rs, together with the development of psychomotor skills. The ministry proposes to examine these provisions in the near future with a view to recommending means of improvement and development.

The integrated education programme for the visually handicapped is being expanded yearly.

There is only one residential state school for crippled children; another is run as an assisted institution. The Kegalle-Ambanpitiya school has 35 students served by six normal trained teachers while the one at Pitakotte has two normal trained teachers.

With effect from 1976, the special education unit undertook the provision of educational facilities to slow learners in normal schools. It initiated an in-service teacher-training programme and trained a few teachers both in Colombo and the provinces for this purpose. At the beginning of this year there were 55 such units providing remedial teaching to 550 such children.

Thus by the first half of 1979 Sri Lanka was able to provide educational facilities for the following numbers of handicapped children:

Visually handicapped	745
Hearing impaired	1,100
Mentally retarded	435
Crippled	49
Slow learners	550
Total	<u>2,879</u>

Information and education for better awareness of early detection and intervention

Health services

At present there are no programmes for creating wider awareness among the general public of the importance of early detection of handicaps in children and early intervention. There is a need for:

- (1) immediate inclusion of aspects of handicaps in children in the existing health education programme;
- (2) improvement and expansion of present health education programmes;
- (3) initiation of training programmes for paramedical workers on early detection;
- (4) initiation of training programmes for child care workers, etc.;
- (5) orientation programmes for primary and pre-school teachers;
- (6) suitable educational provision for many children with handicaps so that they can develop in a stimulating educational environment, where their progress can be assessed by skilled educational, medical and psychological observers, who together can indicate the most suitable future educational placement of the children;
- (7) a much closer working relationship between the school health services and hospital paediatric services, especially in the medical care of handicapped children.

School health services

There is no special programme for information and education regarding detection and intervention concerning handicapped children apart from the general health education programmes.

Education

Since the inauguration of the integrated education programme the Ministry of Education has realized the importance of developing new attitudes to handicapped children and imparting new knowledge regarding them, and special education, among officers, principals and teachers in the field of general education. To this end the ministry organizes seminars or workshops on a regional basis, the programmes consisting of:

- (i) lectures on exceptional children and their needs, and aspects of special education;
- (ii) demonstration lessons on integrated teaching;
- (iii) familiarization with literature concerning special education and handicapped children, teaching equipment, Braille books, etc.;
- (iv) discussions;
- (v) visits to interesting programmes.

The first of these workshops was held in Colombo in December 1968. Similar seminars have been held for parents of handicapped children. The first of these was held in Colombo in

1971 for the parents of visually handicapped children in the city of Colombo. It is planned to make this an annual event.

The special education unit has undertaken further measures for better information. A number of monographs in English and Sinhala on aspects of teaching blind pupils have been published. Among them is a handbook for parents of school age blind children. A handbook for teachers of the integrated programme has been compiled and is in use.

At the time of the inauguration of the open education programme, the national press and the radio came out with news, features and programmes; "To light from darkness" is such a radio programme which has helped to disseminate knowledge regarding handicapped children, especially the blind.

Social services

There is also a counselling service provided by the Department of Social Services. Assistant directors of social services who are attached to district administration offices and social service officers who are attached to offices of the assistant government agents of districts advise handicapped persons on how to take advantage of the services available to them, and also on their rehabilitation.

The Department of Social Services advertises in daily papers details of admissions to training programmes conducted by the department for handicapped persons who are not gainfully employed. The department also broadcasts radio programmes once a month to create a wider awareness of the problems of the handicapped among the general public.

Conclusions and recommendations

From the foregoing it is seen that services for handicapped children in Sri Lanka are in their early stages, and a great deal has to be done to provide a comprehensive nationwide programme. However, the progress made in recent years in the provision of educational facilities is noteworthy. The teaching of visually handicapped and hearing-impaired children jointly with normal children under an integrated programme has much to recommend it. But this innovation makes the provision of specialized services to handicapped children difficult. As regards the organization of the various operational agencies, the mechanisms required for the better provision of services appear to have been already identified. What remains is the harnessing of the knowledge and insights gained in order to provide a thorough and comprehensive service. A co-ordinated detection, referral and follow-up programme seems to be the main need so far as the effective provision of services is concerned.

In all the programmes discussed the weakest point seems to be the "Information and education for better awareness" aspect. Recognition of its importance is apparent, but the attention actually paid to this aspect is not sufficient. The pressure on available resources has made it impossible to divert sufficient resources for this purpose because the justification of a programme is usually dependent on the thoroughness with which professional services are made available to cases already referred to professionals. A co-ordinated general information programme would ensure better coverage and sustained follow-up.

There is an urgent need for a carefully planned national campaign to bring about awareness of the problems of handicaps in children and to develop favourable attitudes towards the care of handicapped children. This should be directed at the general public, and particularly parents, teachers, social workers, paramedical workers and voluntary workers. Such a campaign would help in achieving early detection of handicaps in children and timely intervention in such cases. This would also result in greater community participation and responsibility in the care of handicapped children.

A co-ordination unit should be established for the planning and co-ordination of all programmes related to handicaps in children, conducted by the Ministries of Health, Education and Social Services and all voluntary organizations. This unit should be capable of providing guidance to parents, teachers, paramedical workers, social workers and voluntary workers on all matters connected with handicapped children. This co-ordination would avoid duplication of programmes, help to make maximum use of available resources, and help to provide urgently needed resources for the various programmes.

One of the basic functions of the co-ordinating unit should be to conduct regular surveys of the prevalence of handicaps in children, and to decide on priorities periodically. This will enable the co-ordinating unit to direct the programmes of the different organizations where they are needed most.

Steps should be taken by this unit to incorporate in every programme an adequate information and awareness-building aspect, directed towards the general public. This will ensure that programmes are not justified in terms of attention given to referred cases alone. Considering that a large number of children with handicaps are not reached by the programmes now operating, every effort has to be directed to widening the scope of the services in terms of numbers and areas covered.

The co-ordinating unit should set up a mechanism whereby all cases of handicapped children detected can be followed up, at least until such time as they can become self-supporting. This may be possible through a full registration and classification of all detected cases with the help of specialists in the relevant fields. This would avoid the neglect of any children with handicaps due to factors such as the socio-economic level of the parents.

Short-term training programmes through seminars, conferences and workshops should be initiated at a low level of sophistication for those teachers, paramedical workers, social workers and voluntary workers who show special interest in the welfare of handicapped children, so that they are adequately equipped to recognize handicaps in children and to advise parents and families concerning possible intervention and direct them to the services available.

Elements of content on handicaps in children should be introduced into the existing pre-service and in-service teacher education programmes of the Ministry of Education, with the object of providing the necessary knowledge regarding handicaps in children and developing favourable attitudes and adequate skills for the early detection and care of children with handicaps.

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THAILAND
Division of Special Education
Ministry of Education

PrefaceSummary of the study

This case-study is based on data from questionnaires returned from 13 agencies in Bangkok, 12 of them governmental and one private.

Scope of these agencies' assistance programmes for the handicapped

Some of the agencies provide services free of charge, others charge in part or in whole. If the handicapped child comes from a poor family, the agencies seek assistance from other agencies on the child's behalf. Half of the agencies concerned hold classes in guidance and give information on the handicapped to promote understanding among parents. Only a few of these agencies have instruction programmes of pre-marital, ante-natal, natal and post-natal care for mothers and mothers-to-be. This is inadequate when compared with the number of mothers who could benefit from early detection of handicaps in their children. Only two of these agencies have mental health examination services.

Data from the agencies

Although the data was not gathered on a nationwide basis, this case-study may nevertheless be useful to those who wish to investigate this area of special education. Some of the agencies did not give complete answers, so it is not possible to determine the scope of their work. It is not possible to establish the exact number of handicapped children receiving treatment from these agencies in 1978, owing to the absence of records in some agencies. Most of the agencies described their service programmes without giving any information on the procedures. Most of them emphasized the importance of the education and instruction of families and teachers of the handicapped on the subject of special education.

IntroductionRationale

Thailand is one of the countries in South-East Asia which have undergone a number of cultural, economic and environmental changes. These changes have been so rapid that the people's ways of life have been adversely affected. One result of this is that many children are born handicapped and socially useless.

Handicaps in children are usually attributable to the following factors:

1. The material progress of modern civilization is not always matched by spiritual progress. In Thai society, juvenile promiscuity has become quite common. More unsuccessfully aborted children are born each year. Most of these children tend to have physical or mental disabilities.
2. Educational services, including the dissemination of information on hygiene and sanitation, are neither sufficient nor widespread.
3. Public health services are inadequate throughout the country. There is lack of control over the purchase of drugs, and dangerous drugs can be obtained without prescription.
4. Economic pressure obliges many people to work very hard for their living and consequently neglect their children, whose handicap when it exists may be identified too late.
5. Environmental pollution, including air, water and noise pollutions, constitute health hazards and directly cause handicap conditions.

If all the causes stated could be effectively prevented, it is certain that young people would be more healthy and useful to the nation. In addition, there should occasionally be seminars or discussions about the problems and the appropriate ways to solve them, from early detection to rehabilitation programmes.

Since Unesco offered to provide the Special Education Division with funds for a case-study on early detection of handicaps in children and ways to make families and schools aware of special education problems in Thailand, the Division of Special Education, recognizing the advantage of such a study for the public and for the handicapped children themselves, willingly agreed to undertake it, in accordance with the guidelines set forth by Unesco.

Objectives

1. To collect all relevant details and data from textbooks, related documents, reports, and questionnaires sent out to the various agencies concerned. From this information we hope to establish the kind of service on offer to parents, teachers and the public for the detection of handicaps in children and for general knowledge on the welfare of the handicapped.
2. To analyse and interpret all data collected and draw up a report to publicize the types of service available at various institutions and agencies, so that these services may be properly utilized.
3. To provide guidelines for further in-depth studies which will be beneficial to handicapped children in terms of social, educational and medical services.
4. To exchange the findings of the study with other countries and make use of the latter's findings for Thai children.

For this study, the Special Education Division prepared a set of questionnaires and sent them to 13 agencies responsible for handicapped children's care and education.

Facilities provided by various agencies in Thailand for the early detection of handicaps in children

Responses received from the agencies concerned can be summed up as follows:

I. Division of School Health, Department of Health, Ministry of Public Health

1. The division has a service programme for early detection of handicaps in children.
2. It aims to detect handicaps in children for the purpose of early correction.
3. It provides both medical and psychological check-ups for school pupils.
4. The division looks for handicaps only in pupils for whom it is responsible.
5. It provides personnel working for the division with information for a better understanding of early prevention of handicaps in children, as well as to teachers and students who are under the responsibility of the division.
6. The division provides an educational programme for the better understanding of early detection and early prevention of handicaps in children, exclusively for its own personnel.
7. The division conducts a training programme for its own personnel in order to give them special skills in handicap assistance.
8. The division has the following staff: three physicians, one psychiatrist, two psychologists, two social workers, fifteen nurses and nine public health officers.
9. The division has future plans to implement a programme for the early detection of handicaps in school pupils.

II. Division of Family Health, Department of Health, Ministry of Public Health

1. The division has a service programme for the early detection of handicaps in children.
2. The objective is to ensure that children are born healthy, both physically and mentally, and can later become useful members of society.
3. The division provides pre-marital counselling; pre-conception service; pre-natal service; post-natal service; service given when handicaps or certain problems are discovered in children; child clinics; health check-ups in schools; services given by four maternal and

child demonstration and training centres (under the authority of the division) which provide family planning, maternal and child health services, so that when handicapped children are found the centres can refer them to other agencies which have a programme for each specific case.

4. The division makes known to the public, personnel working in the agency, and recipients of the services, information for the better understanding of early prevention of handicaps in children.
5. The division provides an educational programme to promote better understanding of early detection and early prevention of handicaps in children for personnel working for the agency, parents of handicapped children, and recipients of the service.
6. The division conducts a training programme for its own personnel to make them capable of assisting handicapped children, as well as a refresher course for public health officers concerned to make them aware of the causes and prevention of handicaps in children.
7. The division provides a service for which recipients have to pay in part.
8. The division has future plans to implement programmes for the detection of handicaps in children before and after birth.

III. Maternal and Child Health Demonstration and Training Centre, Department of Health, Ministry of Public Health

1. The centre has a service programme for the early detection of handicaps in children.
2. The objectives of the centre are to minimize or normalize handicap conditions, to prevent handicaps from occurring and to give advice to handicapped children and their parents according to the needs of each child if its handicap cannot be remedied.
3. The centre provides: pre-natal service; post-natal service; service when handicaps or certain problems in children are discovered; child clinics; and health check-ups in schools.
4. The centre disseminates information for the better understanding of early prevention of handicaps in children to its own personnel and to recipients of the service.
5. The centre provides an educational programme for the understanding of early detection and early prevention of handicaps in children for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
6. The centre conducts a training programme for its own personnel and college students intending to work with handicapped children.
7. The centre provides both free and partially free services.
8. The centre has the following staff: two physicians; three social workers; five nurses.

IV. Department of Pediatrics, Faculty of Medicine, Siriraj Hospital

1. The objectives of the department concerning the detection of handicaps in children are to treat handicapped children; to prevent handicap conditions stemming from any kind of sickness; to prevent hereditary handicaps; to allay the anxiety of parents of the handicapped.
2. The department provides: pre-marital service; pre-conception service; pre-natal service; post-natal service; service given when problems of handicaps of children occur; child clinics.
3. The department has a service programme for the early detection of handicaps in children.
4. The department conducts a detection programme for the purpose of research work.
5. The department disseminates information for the better understanding of early prevention of handicaps in children to the public, to personnel working for the department, and to recipients of the service.

6. The department provides an education programme for the understanding of early detection and early prevention of handicaps in children for its own personnel and for recipients of the service.
7. The department conducts a training programme for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and recipients of the service, to give them special skills in handicap assistance.
8. The department provides a free service.
9. The department has the following staff: sixty physicians; two psychiatrists; 1 psychologist and one social worker.
10. The department is planning in future to carry out a pre-natal and post-natal detection programme and a detection programme for children in general.

V. Department of Pediatrics, Faculty of Medicine, Mahidol University

1. The department has a service programme for the early detection of handicaps in children.
2. The department provides the following services: pre-marital service; pre-conception service; pre-natal service; post-natal service; service given when handicaps or certain problems are discovered in children; child clinics.
3. The department disseminates to its own personnel information for the better understanding of early prevention of handicaps in children.
4. The department provides an educational programme for the better understanding of early detection and early prevention of handicaps in children for college students intending to work with handicapped children.
5. The department conducts a training programme for college students intending to work with handicapped children.
6. The department provides a service which must be paid for in full; those who cannot afford to pay can receive free service through the social worker at the university.
7. The department has the following staff: twenty-three pediatricians; one psychiatrist and one social worker.
8. The department is planning in future to implement a pre-natal and post-natal detection programme and a detection programme for children in general.

VI. Department of Maternal and Child Health, Faculty of Public Health, Mahidol University

1. The department has a service programme for the early detection of handicaps in children.
2. The department aims to:
remedy and/or normalize handicap conditions;
prevent handicap conditions from developing or impairing the child's health.
3. The department provides a health check-up programme for normal children at its Bangken Health Centre.
4. The department makes known to recipients of the service information for a better understanding of early prevention of handicaps in children.
5. The department provides an educational programme for the better understanding of early detection and early prevention of handicaps in children for college students intending to work with handicapped children.
6. The department has the following staff: one physician; two nurses and one public health officer.

VII. Rajavithi Hospital

1. The hospital has a service programme for the early detection of handicaps in children.

2. Its objectives are:

- to identify causes of handicaps in children;
- to treat the causes and effects of handicaps.

3. The hospital provides pre-conception service; pre-natal service; post-natal service; service given when handicaps or certain problems are discovered in children.
4. The hospital disseminates to the public and to recipients of the service information for the better understanding of early prevention of handicaps in children.
5. The hospital provides an educational programme for the better understanding of early detection and early prevention of handicaps in children for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
6. The hospital conducts a training programme for its own personnel to make them capable of assisting handicapped children.
7. The hospital provides three kinds of services: free, partially free and fully payable.
8. The hospital has the following staff: 131 physicians; eight social workers; ten physiotherapists; 473 nurses; one public health officer and other personnel.
9. The hospital is planning in future to carry out a pre- and post-natal detection programme.

VIII. The Children's Hospital

1. The hospital has a service programme for the early detection of handicaps in children.
2. Objectives:
 - to detect handicap conditions that are not pronounced in their early stages;
 - to correct and remedy handicap conditions that are susceptible to treatment;
 - to give advice on bringing up handicapped children who need special care and attention;
 - to give advice on the detection of handicaps in successive children.
3. The hospital provides post-natal service and service given when handicaps or certain problems are discovered in children.
4. The hospital makes known to the public, to its own personnel and to recipients of the service, information for the better understanding of early prevention of handicaps in children.
5. The hospital provides an educational programme for the better understanding of early detection and early prevention of handicaps in children for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
6. The department conducts a training programme for its own personnel, college students intending to work with handicapped children, and recipients of the service.
7. The hospital detects handicaps in children of recipients of the service, as well as of people in the area under its responsibility.
8. The hospital has a detection programme for recipients of the service at the hospital as well as for the public under its responsibility.
9. The hospital has the following staff: thirty-seven physicians; two psychologists; six social workers; two physiotherapists and 150 nurses.
10. The hospital is planning in future to carry out a post-natal detection programme and a detection programme for children in general.

IX. Chulalongkorn Hospital

1. The hospital has a service programme for the early detection of handicaps in children.
2. The objective is to prevent and remedy handicaps in children which affect their families and their upbringing.
3. The hospital provides post-natal service; service given when handicaps or certain problems in children are discovered; and a child clinic.
4. The hospital makes known to the public, and to recipients of the service, information for the better understanding of early prevention of handicaps in children.
5. The hospital provides an educational programme for the understanding of early detection and early prevention of handicaps in children for college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
6. The hospital conducts a training programme for college students intending to work with handicapped children.
7. The hospital's services are payable in full.
8. The hospital has the following staff: thirty physicians; three psychiatrists; two psychologists; four social workers; seventy-two nurses and one health educator.
9. The hospital is planning in future to carry out a post-natal detection programme.

X. Rajanukul Hospital

1. The hospital has a service programme for the early detection of handicaps in children.
2. Objectives:
 - to diagnose, and to plan treatment and rehabilitation programmes;
 - to help parents face up to the handicap conditions of their children and realize that they can be rehabilitated;
 - to conduct research.
3. The hospital provides service only when handicaps or certain problems in children are discovered.
4. The hospital makes known to the public, to its own personnel and to recipients of the service information for the better understanding of early prevention of handicaps in children.
5. The hospital provides an educational programme for an understanding of early detection and early prevention of handicaps in children for its own personnel, college students intending to work with the handicapped, parents of the handicapped, and recipients of the service.
6. The hospital conducts a training programme for its own personnel and college students intending to work with handicapped children; the hospital also plans to make this training programme available to recipients of the service.
7. The hospital's service is partially free.
8. The hospital has the following staff: three physicians; three psychiatrists; three psychologists; six social workers; one physiotherapist; forty-three nurses; nine public health officers; twelve certified teachers; fourteen occupational therapists and thirty-eight nursing aides.
9. The hospital is planning in future to carry out a pre-natal and post-natal detection programme and a detection programme for children in general.

XI. Department of Psychology, Faculty of Education, Chulalongkorn University

1. The department is planning to implement a programme for the early detection of handicaps in children.
2. The department has no clear objectives in this respect; it offers counselling services and holds courses for college students and personnel in relevant agencies.
3. The department provides free services.
4. The department disseminates information to the public, to its own personnel, and to recipients of the service.
5. The department provides an educational programme for college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
6. The department conducts a training programme for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and recipients of the service.
7. The department gives service and advice for each child when certain problems or handicaps are discovered.
8. The department has three psychologists on its staff.
9. The department is planning in future to carry out a pre-natal and post-natal detection programme, as well as a detection programme for children in general.

XII. Department of Special Education, Faculty of Education, Suan Dusit Teachers' College

1. The department is planning to implement a service programme for the early detection of handicaps in children.
2. Objectives:
 - to organize appropriate courses;
 - to reduce the number of handicapped children;
 - to conduct studies and research on the problem.
3. The department provides medical check-ups in schools as well as advice for parents of the handicapped when they bring their children to enrol in the school run by the department.
4. The department makes known to the public, its own personnel, and recipients of the service, information for the better understanding of early prevention of handicaps in children.
5. The department provides an educational programme for its own personnel, college students intending to work with handicapped children, parents of the handicapped, and visitors to the department.
6. The department conducts a training programme for its own personnel, college students intending to work with handicapped children, and parents and relatives of the handicapped.
7. The department provides a partially free service.
8. No information is available concerning the staff.
9. Besides operating a detection programme for recipients of the service, the department plans to implement such a programme for young children in school.

XIII. The Holt Foundation

1. The foundation has a service programme for the early detection of handicaps in children.

2. Objectives:

- to give immediate and effective assistance to handicapped children in every respect;
- to rehabilitate children so that they may return to their homes;
- to rehabilitate children to the point where they can have families of their own.

3. The foundation makes known to the public and to recipients of the service information for the better understanding of early prevention of handicaps in children.
4. The foundation provides an educational programme for the better understanding of early detection and early prevention of handicaps in children for its own personnel, college students intending to work with the handicapped, parents of the handicapped, and recipients of the service.
5. The foundation conducts a training programme for its own personnel, college students intending to work with handicapped children, parents of the handicapped and recipients of the service.
6. The foundation provides three kinds of services: free, partially free and fully payable.
7. The foundation has the following staff: one physician; one psychiatrist; one psychologist; eight social workers; one physiotherapist; eleven nurses; nine certified teachers; six trained child-development teachers and one child-development specialist.

Early assistance to the handicapped, their parents and teachers

Some handicap conditions can be remedied or their effects reduced if they are discovered early and corrected by parents, teachers and therapists. Assistance programmes in the form of information, counselling, rehabilitation and general education for the handicapped, their parents and teachers, enable them to understand and face up to their problems. Consequently, the handicapped are prepared to follow rehabilitation programmes which should eventually develop their abilities and teach them to make the best of their viable capacities. They should become independent of their immediate families and society at large, and their mental health greatly improved.

Early assistance calls for co-operation from various agencies, particularly government agencies, institutions and organizations involved in early detection of handicaps and special treatment according to each disability in terms of medical and therapeutic treatment for mental and physical disabilities and rehabilitation programmes and individualized programmes for handicapped children based on their capability.

Data were collected from questionnaires sent out to 13 agencies inquiring about their assistance programmes following the discovery of handicap conditions. Only one agency - the Division of School Health, Department of Health - gave no reply.

Assistance procedures

Replies to questions concerning assistance procedures following the discovery of a handicapped case were as follows:

1. six agencies offer remedial programmes;
2. seven agencies provide welfare services (including counselling, and aids in cash and in kind);
3. seven agencies offer rehabilitation programmes;
4. five agencies prepare handicapped children for formal schooling;
5. twelve agencies refer handicapped children to other appropriate agencies;
6. there are a few agencies which provide other types of service:

the Special Education Department, Faculty of Education, Suan Dusit Teachers' College, organizes special education and offers a counselling service to parents;

the Holt Foundation assists certain handicapped cases in response to the recommendation of social workers from various agencies. The aid given depends on the merits and needs of each case.

Remedial programmes

Programmes currently in operation may be divided into two categories, based on admission criteria:

1. residential treatment programmes, conducted by seven agencies;
2. day treatment programmes, conducted by nine agencies.

Scope of service

The scope of the service on offer at the various agencies is limited by the nature of the aid programmes:

1. assistance given to the handicapped only. This type of service is provided by five agencies;
2. assistance extended to families of the handicapped is offered by nine agencies.

From the above it can be seen that most of the services provided by the agencies are devoted to the handicapped themselves, with further co-operation from their families. Early detection and correction of handicaps may be helped by parental and family co-operation. Furthermore, co-operation may be sought from agencies offering remedial and supervision programmes. Handicapped children should be referred to appropriate agencies which offer treatment according to types of handicap conditions. Therefore each agency should publicize its special services for the purpose of co-ordination and to meet requests for assistance.

Dissemination of information on, and introduction to, medical treatment and special education programmes in Thailand for the benefit of parents, teachers and the public

It is imperative to educate and inform parents and teachers of handicapped children, and the general public. Such information includes the causes of disabilities, rehabilitation programmes, advice on the special upbringing and care demanded by the handicapped, advice and training in self-help skills, automated aids and equipment, indication of service sources, etc. This particular type of service undoubtedly contributes towards the prevention of disabilities, and provides guidelines for self-help skills development programmes.

The service in question may take several forms; for example, pamphlets, articles in newspapers, journals and academic publications; slides and films; exhibitions on disabilities from the medical point of view or directly concerning disabled children; lectures and panel discussions; training courses in remedial treatments, health care, the handicapped's psychology, and other related topics.

Education for handicapped children should be organized according to individual handicap conditions and existing abilities; for example, the deaf, the hard-of-hearing, the blind, the mentally retarded, the physically disabled, etc. The special education of the handicapped is aimed at imparting both academic and vocational knowledge and skills, with a view to equipping the handicapped with the ability to earn a living. Consequently, the handicapped may cease to be a burden on society, and become endowed with a sense of purpose and self-confidence. Furthermore, the handicapped will be introduced to the national cultural heritage, its traditions and customs, so that they may lead a reasonably happy life in society.

Special education for handicapped children in Thailand

The programme of special education for handicapped children in Thailand began with the establishment of a school for the blind in Bangkok, funded by the Foundation for the Blind in Thailand under the patronage of Her Majesty the Queen; this is regarded as the first special school for handicapped children. In 1941, the Division of Special Education under the jurisdiction of the Department of General Education established an experimental teaching unit for the deaf at the Wat Somanuswiharn Municipal School in Bangkok. In 1943, with the co-operation of the Foundation for the Deaf under the royal patronage of Her Majesty the Queen, and the Sethasathien Foundation, the Ministry of Education developed the former experimental teaching unit for the deaf into the Dusit School for the Deaf, which is recognized as the first school for

the deaf in Thailand. Later this school moved to its present site on Rama V Road in Bangkok and changed its name to Sethasathien School.

In 1957, experimental classes were provided for slow learners by the Ministry of Education in seven schools in Bangkok which were under the authority of the Department of General Education. At present, there are only six such schools because one of them is now under the authority of the Bangkok Metropolitan Municipality.

In 1964, the Rajanukul School for mentally retarded children was founded by the Rajanukul Hospital for the Mentally Retarded; the school was started in a classroom building in the hospital grounds, funded by His Majesty the King's donation.

In 1965, Srisangwal School for the Physically Handicapped was established in Pakred District, Nontaburi Province, by the Foundation for the Welfare of the Crippled under the royal patronage of H.R.H. the Prince's mother.

The Ministry of Education co-operates with all foundations by assigning personnel to teach at these schools, providing necessary educational equipment and materials, helping with teacher training, and conducting periodical educational seminars. The government has always been interested in special education for the handicapped. Not only has it always encouraged and co-operated with the foundations in the establishment and management of the schools, in personnel placement, and in teacher training, but it has also included its policy on special education for handicapped children in the National Education Scheme (1977), currently being implemented. It is stated in section 2, article 15, that: "The state shall endeavour to make education accessible to the poor, the physically, mentally and socially handicapped as well as the educationally disadvantaged". (1) And in section 3, article 38, it is laid down that: "Special education is provided for those who have special character traits, or who are physically, intellectually or mentally abnormal. It may be given in a special institute or in an ordinary school, as required". (2)

These provisions under the National Education Scheme confirm that the Government of Thailand has definite plans to provide special education services for handicapped children to the best of its ability. The Division of Special Education, under the jurisdiction of the Department of General Education, Ministry of Education, responds to this policy either by establishing government sponsored and managed schools for handicapped children or by encouraging the private sector and various foundations to organize this education.

Present special education programme for handicapped children

The Ministry of Education, through its Special Education Division, Department of General Education, is in charge of the various special education programmes. Its responsibilities include providing or promoting various types of special education schools, either government sponsored or sponsored by private agencies and foundations, with the co-operation of the state.

There are three types of special education programmes conducted by the Division of Special Education.

1. Special education programmes for the deaf.
2. Special education programmes for the hard of hearing.

Special classes are provided for the hard of hearing in some government schools. Hard-of-hearing children who are capable of learning with normal children are mainstreamed into regular classrooms in government schools.

3. Special education programmes for slow learners.

Special classes are provided for slow learners in various government schools.

Owing to the fact that the handicap conditions of the deaf, the hard of hearing, and slow learners are difficult to identify, the organizing of an educational programme for any of these types of children by private organizations or foundations might not be successful due to lack of contributions and co-operation from the public, which is why the government has undertaken to provide educational services for children with these handicap conditions.

(1) Ministry of Education, Thailand, The National Education Scheme (1977), p. 4.

(2) Idem, p. 11.

State-owned special education schools for the handicapped can be classified by types of handicap as follows:

1. Schools for the deaf

There are seven schools in Bangkok and other provinces, including both day and boarding schools:

Sethasathien School, Dusit, Bangkok;
 Toong Mahamek School for the Deaf, Yarnawa, Bangkok;
 Kornkaen School for the Deaf, Kornkaen Province;
 Tark School for the Deaf, Tark Province;
 Song-kla School for the Deaf, Song-kla Province;
 Choburi School for the Deaf, Choburi Province;
 Wat Jumpa School for the Deaf, Taling-shun, Bangkok.

The Wat Jumpa School for the Deaf was opened in the 1980 academic year and admits children with hearing impairment as well as those with multiple handicaps.

Admission procedure

For schools in Bangkok, children are selected by the schools, with the exception of Wat Jumpa School for which selection is made by officials of the Division of Special Education.

For schools in the provinces, the selection is made by the provincial education officers.

Admission qualifications

A child must be deaf and of compulsory school age, with the exception of the Choburi School for the Deaf and the Wat Jumpa School for the Deaf which admit only children with a hearing loss of less than 85 decibels.

The child must be otherwise healthy and free from any communicable or chronic diseases which may be an obstacle to its education.

The child must not have other handicap conditions, with the exception of Wat Jumpa School for the Deaf which plans to admit children with multiple handicap conditions which are not too debilitating.

Parents must bring their children to the schools when applying and have ready the necessary documents, such as a birth certificate, a census record, photographs, and reports of a hearing test and an IQ test.

Curricula

Curricula at these schools are organized according to the standard curricula of the Ministry of Education. However, exceptions are made when course requirements are beyond the child's abilities, limited by its handicap. Emphasis is placed on occupational skills and learning-by-doing methods so that a child will be able to practise what it has learned to earn a living in the future, and will be capable of working with "normal" people.

Method of teaching

All schools, with the exception of Choburi School for the Deaf, where the oral method is used, use the total communication method of teaching.

Schools for the hard of hearing

Special classes are provided for hard-of-hearing children by the Division of Special Education, under the jurisdiction of the Department of General Education, in some government schools. Hard-of-hearing children who have been diagnosed as being capable of learning with normal children are mainstreamed into regular classrooms. The main objective is to single out hard-of-hearing children who have a chance of developing their potential to the full.

At present, there are four primary schools in Bangkok under the responsibility of the Ministry of Education which have programmes for hard-of-hearing children. They are: Payatai School; Wat Nangnong Kindergarten; Piboonwes Kindergarten; and Samsen Kindergarten.

The Division of Special Education plans to extend educational programmes for hard-of-hearing children to more schools in Bangkok and in the provinces.

Admission qualifications

The child must be between the ages of five and seven.

The child must be diagnosed and certified by an otorhinolaryngologist that the decibel count of its hearing loss is no more than 55.

The child must have no other diseases which could be a learning barrier.

The child must have no other handicap conditions.

Applications for admission may be submitted around January each year.

A selection committee is in charge of the placement of hard-of-hearing children.

Teaching-learning process

Children are grouped according to their learning capability. The oral method is the only teaching method employed. Capable children are sent to join regular classrooms.

Schools for slow learners

Educational programmes for slow learners are provided for children of compulsory school age who have an IQ of between 75 and 90. The programmes are aimed at providing these children with education according to individual capability.

The Division of Special Education, under the jurisdiction of the Department of General Education, organizes special classes for slow learners in five primary schools in Bangkok, also controlled by the Department of General Education:

Payatai School;

Piboonprachasun School;

Wat Chanasongkrum School;

Wat Waytawun Tummasawas School;

Wat Nung School.

In the 1980 academic year, special classes for slow learners are being opened at Darakarn School, under the jurisdiction of the Department of General Education, and at the Wat Tasanaroon Municipal School, both of which are located in Bangkok. Currently a survey is being made concerning the establishment of more special classes in provincial schools controlled by the Division of Special Education.

Admission criteria

The child must be of compulsory school age according to the Primary Education Act.

Parents must be reasonably co-operative.

The child must not have multiple handicap conditions.

The child must have an IQ of 75-90.

The child must be placed in the appropriate school as determined by the Division of Special Education, taking into consideration the question of transport.

Teaching-learning process

The same standard curriculum as for normal children is followed, but adaptation must be made to simplify the teaching process to the level of understanding of each child.

Children are taught individually or in groups.

More educational tools are used with emphasis on practical work.

Emphasis is placed on certain subject-areas that are relevant to everyday life, such as safety education, health education, domestic and community living.

Educational programmes for hospitalized children

The Division of Special Education co-operates with various hospitals in providing special education classes for those children who have to stay in hospital, but are permitted to study by doctors, by sending in teachers to teach these classes regularly. Currently, there are special education classes of this type in three hospitals in Bangkok: Siriraj Hospital; Chulalongkorn Hospital and the Children's Hospital, which has temporarily suspended the special education programme while additional premises are being built.

Special education classes for hospitalized children are aimed at providing remedial teaching, preventing children from forgetting academic subject-areas, helping them to catch up with their age peers at school, and promoting their psychological health. If these children can resume their schooling without interruption, a great deal of time and money can be saved.

Teaching methods

Three different methods are used:

organizing special classes in hospitals;

assigning teachers to teach children at their bedside;

using both individualized teaching and group teaching according to grades and capabilities.

Curriculum

A standard curriculum developed by the Ministry of Education in 1977 is currently used.

Evaluation

A standard evaluation procedure developed by the Ministry of Education is used.

Educational programme for the blind - mainstreaming

The objective of mainstreaming blind children into regular classrooms is the same as that of the provision of special education programmes for the blind in special schools. Because the special school for the blind, funded by the foundation, can only enrol limited numbers of blind children, the Department of General Education, through the Division of Special Education, has to organize a mainstreaming programme for blind children in regular classrooms. These blind children learn to adjust to normal society. This mainstreaming programme also helps to save construction and land costs.

Blind children are being mainstreamed in all kinds of schools and institutions: primary and secondary schools; teacher colleges; and some universities.

At present, blind children are being mainstreamed into regular classrooms in many schools under the jurisdiction of the Department of General Education, such as Chinorose School and Samsen School.

Admission criteria

The child must be totally blind and of compulsory school age.

The child must be placed in a commuting primary or secondary school near his home, and the school must be one that comes under the jurisdiction of the Department of General Education and is included in the mainstreaming project.

The child must be interviewed by administrators or teachers at the school before admission.

The child's parents must pay all expenses as required by the school.

Curriculum and teaching - learning process

The child must take part in all subjects and activities of the school, if they are within the range of his abilities.

The Division of Special Education provides teachers for a remedial programme in the subject-areas ' at a child needs to study in order to catch up with his peers, and to give instruction on daily living and self-help skills.

The Division of Special Education provides a brailier and Braille textbooks for a child.

A child who has good grades, and is capable, will be supported for further schooling at the undergraduate level.

The standard curriculum developed by the Ministry of Education in 1977 is used in combination with the curriculum of each institution.

The provision of special education services for handicapped children by private organizations and various foundations can be classified by types of handicap conditions as follows:

1. A special education programme for mentally retarded children is provided for children of compulsory school age under the Primary Education Act.

This programme is aimed at providing education for these children matched to their needs and aptitudes so that they can live their own lives in society or earn a living in basic occupations.

There are only two schools for mentally retarded children in Thailand: Rajanukul School, which is owned by Rajanukul Hospital under the jurisdiction of the Department of Medical Sciences, Ministry of Public Health; and Panya Vutikorn, which is funded by the Foundation for Mentally Retarded Children under the patronage of Her Majesty the Queen.

Admission criteria

The child must have an IQ of 50-75.

The Division of Special Education co-operates with the Foundation for Mentally Retarded Children by assigning teaching staff, helping the schools with teacher training, and supervising teachers at both schools on request.

2. Educational programme for the physically handicapped

This programme is aimed at providing physically handicapped children with academic knowledge and specific occupational skills suited to their individual capability and interests, so that they can earn a living and live with self-confidence and self-esteem in normal society.

There is only one school for the physically handicapped, the Sri Sangwal School, funded by the Foundation for the Welfare of the Crippled, under the royal patronage of H.R.H. the Prince's mother; it is located in the Pakred District in Nonthaburi Province. The school caters for children from kindergarten level up to grade ten.

The Division of Special Education co-operates with the foundation by assigning teaching staff, providing educational materials and equipment, helping with the costs of school building as allowed by the budget each year, organizing training courses for teachers, and advising on programme planning.

3. Educational programme for the blind

This programme is aimed at providing blind children with occupational skills and self-help skills so that they can earn their own living and live normal lives without being a burden on society.

Educational institutions for the blind in Thailand include the following:

Krungthep School for the Blind, funded by the Foundation for the Blind in Thailand, under the patronage of Her Majesty the Queen, provides education from kindergarten level up to grade ten.

Northern School for the Blind in Chiangmai, funded by the Northern Foundation for the Blind, provides education from grades one to six.

Rehabilitation Centre for the Blind at Pakred, Nonburi, funded by the foundation for the Blind, under the patronage of Her Majesty the Queen, provides occupational training in carpentry for blind adults.

The Division of Special Education, under the jurisdiction of the Department of General Education, co-operates with both foundations by sending teachers in to teach at the school; providing various educational materials, such as textbooks in Braille, and brailers, depending on the educational budget for each year; arranging teacher-training and supervision programmes; and helping with educational costs as the annual budget permits.

Qualifications of special educators to teach in all special programmes

In order to provide handicapped children in Thailand with the most effective special education services as stated in the 1977 National Education Scheme, the Department of General Education has set forth the qualifications of special educators engaged in all special education programmes as follows: they must attend a special education teacher-training course organized and certified by the appropriate division; and they must have a diploma in education or a related field.

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UNITED KINGDOM
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What is a handicap?

The prevention and early detection of handicaps in children has become a matter of growing concern to those involved in the fields of child health and special education in the United Kingdom in recent years. Many voluntary organizations, including some parents' groups, have become increasingly involved in this area also. The subject is a complex one, not least because of ambiguity in the term "handicap" itself, which is sometimes used interchangeably with "disability" although the latter term carries a connotation of impairment of physical or sensory functioning. The concept of "handicap" is a relative one, in that a person can be considered to be handicapped in relation to the environment he lives in and what he wishes to do, rather than in terms of some absolute standard. No one would deny that a young child with a severe degree of cerebral palsy, who has so little voluntary control over his body that he can neither move nor speak, and has to be fed, dressed and toileted, is severely handicapped in terms of being unable to live the kind of life that other children lead. The child has a severe disability. But a child may have a disability in medical terms which may be functionally more or less severe depending on its effect on other skills. For example, the absence of a thumb on the right hand will be a more serious matter in future educational terms (because of possible difficulties with writing) for a child who tends to be strongly right-handed than for one who is naturally left-handed. Some young children are handicapped because they live in family environments which are so poor in economic terms that malnutrition is an ever present danger, with the effect that this can have on health and growth. Others will live with parents who are mentally or physically punitive, or provide such impoverished social and cultural models that the child has fewer opportunities to learn. These are handicaps which have no physical or sensory manifestation but which, by hindering the child from using the environment fully, result in a parallel kind of deprivation, and their identification and prevention are also important. This study will attempt to deal with the subject at these different levels. Much of the material will derive from evidence submitted to the government committee of inquiry into the education of handicapped children (the Warnock committee) of which the writer of this study was a member, and which produced a report in 1978.

Before launching into an account of what is being done in the United Kingdom today, both to prevent handicaps and to identify babies and young children whose difficulties and disabilities may hinder them from making use as fully as possible of their potentialities for interaction with others and for learning in their environment, it is economical to preface the account with a brief description of where responsibility lies for health, education and welfare services in the United Kingdom, and aspects of these structures that are especially relevant to the groups under discussion. Although the United Kingdom shares with many of the older industrialized countries the expectation of a fairly high level of these services, the way in which they operate varies from country to country, and to some extent what is available reflects differences in historical and cultural development. For example, the National Health Service (NHS) of the United Kingdom, for which citizens pay through statutory contributions, is unique in some aspects as compared with state health provision in other countries. The publicly provided education system represents in the United Kingdom a particular kind of central government guidance and local implementation. The role of voluntary associations, some representing religious and philanthropic groups, others the interests of people concerned with particular disabilities, is a substantial one in the area under consideration. For this reason, the following account may help to set the scene.

Health, education and welfare structures in the United Kingdom

The United Kingdom of Great Britain and Ireland consists of England, Scotland, Wales, Northern Ireland and several other smaller islands near the two largest. Although these countries have been united under one monarch for some centuries there are still differences between them, both culturally and legally. In a study of this nature it would not be appropriate to specify all the differences in detail, unless these gave rise to gross differences in practice which affected the subject under consideration. Nevertheless, it is important to make it clear at the outset that the small countries which make up the United Kingdom prize their differences from one another and these are recognized in legislative structures and assigned parliamentary responsibilities in government. Thus there are some broad features common to the whole United Kingdom which may differ in particular aspects in its constituent countries.

Although the elected Parliament is the supreme legislative body of the United Kingdom, and with the central government there is a central executive system of departments staffed by civil servants, much of the everyday business of the provision of services to the community is carried out through the structures of local government, with locally elected councillors. Local

government raises some of its finance through local taxes, but receives financial aid from central government for about 60 per cent of its budget. Thus government in the United Kingdom is a shared function. Local government can provide, for example, day nurseries (through social services departments) and nursery schools and classes and teaching staff (through education departments). Financial help to families in need is provided from central government, but many aids to parents of handicapped children in the way of adaptation of housing will come via local government departments.

Until 1974 local authorities were responsible also for some health service provision including the infant (mother and child) welfare clinics and school health services (through health departments). This function was taken away from local authorities after the reorganization of the National Health Service and a unified tiered structure was substituted (Scotland has a somewhat different structure from England and Wales). The three tiers of the NHS are regions, areas and districts, and these operate on broadly geographical boundaries, in some cases contiguous with those of the local authorities. The health districts of the National Health Service each contain a district general hospital, although some may contain more than one hospital, especially in heavily populated city centres. It is proposed by the government to change some of these structures within the next three years but the future reorganization of tiers will not necessarily affect the provision of services.

As far as the general population is concerned, then, much of the quality of life which is dependent on the provision of medical, welfare and education services is provided by national or local government and paid for through taxes. All citizens have a right to use the National Health Service, and although there are private insurance schemes, and hospitals, nursing homes, and doctors' services are available outside the NHS, the majority of the population makes use of the NHS in some way. Ninety-seven per cent of all babies born in the United Kingdom at present are born in hospital, the majority in NHS hospitals. Only 1.7 per cent of deliveries were at home in 1977. The proportion of doctors who do not have any contact with the National Health Service is small.

As far as education is concerned, there is a legal requirement on local authorities to provide education for all children in their area from five to sixteen years of age. Most local education authorities make some provision for children under five years of age, particularly for those with sensory, physical or mental handicaps. Education authorities have a duty to discover and make provision for handicapped children of school age.

Local authority social services departments also have to observe certain legal requirements as to the inspection of day care provision for children under five, and many organize day nurseries which cater for children from six weeks upwards, usually from families who have some kind of social or economic need or both. Whereas nursery schools and classes under the education service only operate during school terms (about 40 weeks in the year), day nurseries are generally open five days a week throughout the year, and for longer hours. Although many children whose parents need to go out to work are probably looked after by relatives or friends, many young children are also looked after by child minders on a commercial basis, and it is the duty of the local authority social services department to license and inspect these minders, as also other nurseries which operate on a commercial basis, or those provided by voluntary (including religious) bodies, which may be non-profit making. Other voluntary provisions where groups of young children are brought together, as in pre-school playgroups, are also supervised by local authority social services departments.

This shared implementation of the national will means that there can be some local diversity within broad limitations imposed at a national level, which can prove to be advantageous in some ways and disadvantages in others, but makes possible a certain amount of experiment. Furthermore, the working of a private sector alongside and sometimes with the public sector, gives yet more opportunity for variation. In describing the situation with regard to the prevention of secondary handicaps in the United Kingdom, however, it does mean that, while general trends can be described, examples of new developments do not apply universally, but an attempt will be made in this paper to make clear these aspects.

From the historical point of view, in general both national and voluntary (philanthropic) concern for the handicapped has been directed more to older children and adults than to the very young in the United Kingdom. Secondary prevention (alleviating or preventing the compounding of handicap by therapy, education and support) is a comparatively modern, sophisticated concept. In the nineteenth century and previously, lack of scientific knowledge, especially in biological, medical and technological fields, a different attitude regarding the responsibilities of society towards its less fortunate members including the disabled, and a less developed educational system, meant that there was comparatively little help available for those people with physical,

sensory and intellectual disabilities who survived infancy and early childhood. Even as regards educational help for children of school age, the Warnock report points out "special education for the handicapped in Great Britain is of relatively recent origin. The very first schools for the blind and deaf were founded in the lifetime of Mozart; those for the physically handicapped awaited the Great Exhibition; day schools for the mentally handicapped and epileptic arrived with the motor car; whilst special provision for delicate, maladjusted and speech impaired children is younger than living memory. Even so, the early institutions were nothing like the schools we know today and they were available only to the few" (1978). The gradual development in Great Britain of the welfare state, of a universal education system, and increasing scientific knowledge have not only made it possible to provide therapeutic and supportive measures for people who would otherwise become increasingly handicapped in the complex society of the present day, but have also focused attention on the need to provide help from the earliest possible moment. This does not mean from earliest infancy for all handicapped children, for it may not be possible to discover the problems of some in the initial years of life, but from the time of discovery. While the decades of the 1950s and 1960s especially were the heyday of scientific and medical dominance of the field of handicap, there has been a discernible shift in the 1970s, which would seem to be likely to continue in the 1980s, and this is towards the social aspects of treatment and support. This probably reflects changes in society's attitude in general, in that there is possibly less reverence and more scepticism for "expertise" today and a tendency to move towards the view that people should be more involved in actions which may affect their own lives. In the field of secondary prevention of handicaps, this attitude has become very noticeable. One of the corner-stones of the Warnock report was the concept of "parents as partners" and a children's committee discussion document (1980) takes up this theme for all families.

Primary and secondary prevention

While the major concern of this study is with the prevention of secondary handicap, there are some aspects of primary prevention which overlap in part with this theme. For the sake of completeness, a brief mention of the major areas of primary prevention is therefore appropriate. Primary prevention covers such matters as basic research into the causation of handicap. In the United Kingdom there has been a substantial amount of research - predominantly in the medical sciences rather than in the social sciences - over many years into this aspect, funded by central government, by philanthropic trusts and by voluntary organizations concerned with particular handicaps. The monitoring of changing numbers of children with particular disabilities and difficulties through official returns made to central government departments such as the Department of Health and Social Security (DHSS) and the Department of Education and Science (DES) enables observations of change in the incidence of various handicaps to be made, and inferences as to possible causes can be pursued by further research as well as serving the parallel aim of planning for the future need for services. Yet another aspect of primary prevention is concerned with the prevention of handicaps before conception, as in genetic counselling, and with discovery of possible handicaps before birth. It is in this area, especially, that the overlap with secondary prevention arises.

There are some groups of women who are at higher risk of producing handicapped children than the general population. One such group is of those who carry the genes for certain conditions such as haemophilia. As part of the National Health Service, there is available genetic counselling through specialists in many parts of the country, for couples where a partner may be a possible carrier of a genetically linked condition which could produce disability. Another group of vulnerable women is of those who contract German measles (rubella) during the early stages of pregnancy. As a result of new initiatives by the government, through the Department of Health and Social Security, prompted both by government advisory bodies such as the children's committee and voluntary organizations such as the Spastics Society, a major effort is being made to ensure that all young females are vaccinated against the disease before they enter the child bearing years, or for those already at this stage, before they conceive a child. Yet another group of vulnerable women is of those who conceive a child when over the age of 35, when statistically the chances of giving birth to a child with Downs syndrome (mongolism) are greater. For this reason, in some parts of the country, it has become regular practice to obtain a sample of amniotic fluid (amniocentesis) from the older pregnant woman so that if there is evidence of a chromosomal abnormality she can be offered the opportunity of termination of pregnancy. These methods of detection are also being explored in an attempt to predict some central nervous system abnormalities, but there are still some dangers attached to the process, and its use is by no means universal.

Among other groups of women who are thought to be vulnerable to producing children with a poorer chance of survival, or a disability, are those with a background of undernutrition and maternal disease, more prevalent in the poorer, unskilled groups of the community (social

classes IV and V in the official categorization of the Registrar General) and among unsupported mothers.

There has been growing concern among workers in the field of ante-natal care that this vulnerable group should be reached also, but there has not yet been a major national drive to combat the increased dangers of having handicapped children in this group. The need to monitor the health of the expectant mother and foetus is realized, but ways of ensuring early and regular attendance at ante-natal clinics have not yet been effected nationally. Thirty per cent of pregnant women - including probably a higher proportion of the more vulnerable groups mentioned above - appear to leave confirmation of pregnancy and registration for the accouchement later than may be wise. To quote from a children's committee discussion document (1979) "women do not usually attend for clinic ante-natal care until the tenth to twelfth week. Earlier attendance for examination and screening may be helpful in protection and prevention although this would depend upon the mother notifying her family doctor as soon as she thought she was pregnant and the doctor confirming the diagnosis. In the primiparous this can be by seven weeks of pregnancy, while in the multiparous it is often as early as five weeks; often neither group consults their medical advisers until much later". The document has suggested a national campaign to urge women to book earlier for ante-natal care, but this is as far as matters stand at present.

It would be of inestimable benefit to society both in the lessening of suffering and in reducing the diversion of extra resources, if it were possible to prevent any babies with a serious physical or mental handicap being conceived, or incurring handicap through avoidable malignant factors affecting the foetus during pregnancy. The first line of prevention is surely education of all young citizens as would-be parents, with better knowledge of the factors which put the foetus at risk, such as inadequate nutrition, smoking, drugs, or certain infectious illnesses such as rubella.

In the United Kingdom any form of general education for parenthood is still at an early stage. Most young people who become parents follow the patterns they have observed in their own lives, and for this reason, there has been much discussion in official circles in recent years of a "cycle of deprivation". It has been suggested that young people who were themselves brought up in poor conditions tend to reproduce these when rearing their own children and so poverty of environment and lack of understanding of children's needs become self-perpetuating. It is now realized that this is too simplistic a concept, but nevertheless, there is strong evidence that through ignorance the health needs of the unborn child and the growing baby are often neglected. There have been increasing attempts to offer education on these topics at different levels. The Health Education Council, a national government-sponsored body, has produced material which can be made public nationally through the media, or through personnel of the National Health Service. Most health authorities have a health education officer whose duty it is to make known matters of health care to the general public, including schoolchildren. One of the public examinations taken by secondary-school children, the Certificate of Secondary Education (CSE) has been exploring new ground with courses on child development, frequently linked to home economics courses. Although these courses are more often taken by girls, a few boys are now taking them also. Many secondary-school children, especially in state schools, have been taking courses of community studies which involve some form of service to others such as helping regularly in schools for severely handicapped children or in nurseries and playgroups. This voluntary service is usually linked with a study of the needs of children, as are sometimes, the biology and human physiology lessons. Although attempts are made by many teachers to incorporate general studies as described above into a wider curriculum, the tendency still remains for the more academically able children to concentrate on subjects of a traditionally academic nature, and for the less able young people to participate in those general studies which involve the community outside the school. The British Broadcasting Corporation (BBC) and the commercial networks controlled by the Independent Broadcasting Authority (IBA) have produced and screened programme series on the needs of children and child development. There is not, however, at present in the United Kingdom, any concerted policy of education for parenthood.

Education for parenthood of the young woman who is already pregnant is carried out by various bodies concerned with ante-natal services, and more especially by those members of the nursing profession who are midwives and health visitors. Most women, when pregnant, attend their family doctor, and their pregnancy is either supervised by him, or they are referred to the ante-natal department of the hospital where they will register for delivery of their baby. Part of the supervision of the pregnancy should include advice about adequate diet and rest, information regarding preparation for and about the birth, and entitlement to various government allowances. There is a maternity grant of £25 (unchanged since 1969) but its payment depends on the level of National Insurance contributions, and some of the most vulnerable groups of women - young unmarried women who have only just begun to work, and mothers under the age of 16 - do not qualify at present but would have to obtain financial help through Social

Security channels. The government has announced that the grant will become non-contributory in 1982.

The peri-natal period and the prevention of handicaps

The three main causes of peri-natal mortality and morbidity in the United Kingdom, accounting for 70-80 per cent of all peri-natal deaths, are low birth weight, congenital malformation and hypoxia (lack of oxygen). Other causes of peri-natal death and handicap which make up only 20 per cent of the total include birth injury, haemolytic disease of the newborn, and infection. There are striking variations in peri-natal mortality rates between different regions of the United Kingdom. "Background biological factors reflecting genetic aspects, poor nutrition, previous ill-health and upbringing probably account for about half the variations between the regions of the United Kingdom but the other half are probably associated with differences in the quality and availability of services. It would seem that in all studies a disproportionate amount of the peri-natal mortality and morbidity occurs in those who are poorest supported - social classes IV and V, the unwed and the very young mothers" (1979).

While it is possible to estimate fairly accurately the number of babies born with Downs syndrome or spina bifida with meningomyelocele, and at a later age to estimate the number of children with severe cerebral palsy, hearing or visual impairment, it is more difficult to estimate the number of children who, because of subtler forms of damage, may also be handicapped, in ways that only manifest themselves later in problems of behaviour, maladaptation to the environment and difficulties with learning. It has been estimated by Professor Alberman (1979) that something like 6.2 per cent of all babies have moderate or severe or mild handicaps sufficient either to prevent normal schooling or to hamper it. At least half, or possibly two-thirds of these handicaps, especially those in the moderate group including many cases of cerebral palsy, occur in the peri-natal period. This would suggest that out of the total of about 38,000 handicapped children born each year (on the basis of present available figures) possibly 20,000 are damaged in the immediate peri-natal period.

The DHSS, the children's committee and many of the professional bodies concerned as well as some voluntary organizations have been drawing attention to the need to lower the figures of peri-natal mortality and morbidity, with ensuing handicaps. Recent statistics issued by DHSS show an improvement over the past five years as far as peri-natal mortality is concerned. What is not so clear yet is whether the lowering of the peri-natal mortality figures will necessarily lower those for handicap also, although there would be a reasonable expectation that this would happen.

Even with increasing work on prevention some children will still be born with disabilities. Although the likelihood of a child with Downs syndrome being born to a woman over 35 is greater, many Mongol children are born to younger mothers, and even if there was total population screening with amniocentesis before birth, it would not necessarily follow that all such pregnancies would be terminated. The dangers of damage to the baby through the causes mentioned earlier and the fact that some of the babies so damaged will survive, means that the problem is not only a sizeable one, but one that is not easily completely quantifiable.

When a baby is born either alive or dead after the twenty-eighth week of pregnancy, the person in attendance on the mother at the time of, or within six hours of the birth, must notify the area medical officer in writing within 36 hours of the birth. The thalidomide disaster, when many limb deficient babies were born, has prompted since 1964 the registration of congenital defects obvious at birth, and a monthly report on these defects is made to the general register office, which then compiles statistics. This cannot be a complete record, and only gross defects are recorded, many being discovered subsequent to birth. Not all midwives or doctors delivering the babies may wish to fill in this addition to the notification form, if the mother has not yet been informed that the baby is abnormal or damaged, or if suspicions about damage have yet to be confirmed. There is a statutory duty on community midwives to visit all mothers with new babies in their homes within 28 days, and notification to the area medical officer enables the information about the birth to be made available so that this statutory duty can be carried out. A further group of state registered nurses with specialized training as health visitors also include among their duties the visiting of mothers with young families, and are able to act both as an educator of the mother or parents, giving advice and support, as a liaison worker in some areas with the family's general practitioner (family doctor) and as a diagnostician during the course of health checks on the baby.

The discovery of handicaps at birth and in early infancy

A comparatively small proportion of babies have identifiable handicaps at birth. Some will need continued hospitalization while surgical procedures or intensive treatment are carried out, usually with some paediatric supervision. Babies born with spina bifida with meningocele usually require an operation to close the back, with possibly the insertion of a valve in the head to drain off the cerebro-spinal fluid and contain the threat of hydrocephalus. Since the realization over the past ten years that some of the children kept alive by heroic surgical measures survived with very severe disabilities which grossly impaired their quality of life, and created great distress and strain in their families, there has been a DHSS supported decision that more careful consideration should take place before surgical intervention; if the baby is very severely damaged it might be better to refrain from immediate major procedures, and to first discuss with the parents very fully the likely quality of life that the child might experience, should it survive, so that they can contribute in an informed manner to a decision to operate. Many babies with spina bifida do receive surgical treatment, and this group will continue to require a good deal of help from the NHS, because of the continuing medical problems, and many of them will require further bouts of hospitalization for their medical needs, as well as support from health, education and social services in the community.

Other babies born with identifiable handicaps are those with dysmelia (limb deficiency - such as occurred with increased frequency during the thalidomide episode), many of those with Down's syndrome or other chromosomal abnormalities, and anencephalic and other physically abnormal babies. Most of those who survive are likely to need extra help from society in childhood and later life, either indirectly through services and support to their parents, or directly both in infancy and later life. A few of the damaged babies whose parents feel unable to accept them or care for them may need to be taken care of by other agencies, either of the state or of voluntary and philanthropic bodies.

Comparatively few of the children who may come to be considered handicapped in early and later childhood are so readily identifiable at birth or early infancy. Medical and neurological examinations of the newborn, especially of those babies whose birth was prolonged or difficult, may be regularly carried out in hospitals where obstetricians and paediatricians are both available and work together. Tests such as that for phenylketonuria are routinely carried out at seven days of age on all babies, so that appropriate treatment can be arranged.

The discovery of handicapping conditions in very young children is dependent to a great extent on awareness that expected developmental functions are absent or grossly retarded, and therefore recognition of the fact that there may be a problem depends in part on the child having attained the age at which a particular kind of development is generally expected. With physical disabilities such as cerebral palsy, the most severe cases will be observed very early, but many more within the first two years of life, as aberrancies or failures in the development of motor-function are seen. The detection of severe disabilities of hearing and vision, also, will depend in part on an assessment of the baby's responses to aural or visual stimuli, again developmentally related to some extent. Much of the identification process of these early years has been, and continues to be, the province of professionals in the National Health Service in conjunction with parents. It will take place in various situations: through hospital-based paediatric and other specialities, through general practitioners, and predominantly through the community-based health services, especially through clinical medical officers and health visitors seeing mothers with babies and young children in their homes and in baby welfare clinics.

While health visitors still visit many mothers of young babies in their homes, two factors in recent years have tended to militate against universal coverage of all young families; firstly, a shortfall in the number of health visitors required by the NHS, and secondly the comparatively recent practice in some areas of attaching health visitors officially to family doctor practices. Previously, under former local authority departments of health, the usual practice was that responsibility for visiting all families with young children in a particular area was allocated to health visitors on a geographical basis. Health visitor attachment to family doctor practices has had advantages in closer liaison between general practitioners and health visitors, but because the patients of any individual general practitioner may be geographically quite widely spread in an area, the links of health visitors with young families have become geographically spread also and some families - sometimes the most vulnerable ones - may be missed, especially if they have moved house or are not registered with a general practitioner at all. Community midwives and health visitors encourage young mothers to attend baby welfare clinics, so that the baby's developmental progress can be monitored, advice given, and immunization procedures carried out. Some of the baby welfare clinics are operated by general practitioners themselves, others are serviced by clinical medical officers of the community health services. Some of the monitoring of the baby's development will be by using widely accepted screening procedures,

covering various areas of development and functioning. These screening activities make a valuable contribution to the whole process of identifying young children with disabilities and possible handicaps. Many health authorities operate a handicap register, on which those children known to have a handicapping condition which may require special facilities and treatment and possibly special educational provision are recorded. This register is different from the risk register that many local authority departments of health used to compile, of babies and young children thought to be at risk of a handicapping condition because of factors in their pre-natal history, such as maternal rubella or genetic inheritance, or factors in the peri-natal period such as anoxia or very low birth weight. Particularly since the report of the Court Committee of Inquiry into child health services (1976) the concept of the risk register has tended to be dropped in favour of total screening of the whole infant and young child population, with some additional selective screening. Apart from the professionals involved in the screening process who may initiate the identification of children with disabilities, the parents themselves may of course initiate an examination of their child because they consider that its development is not proceeding as expected or because they feel anxiety about it. In either set of circumstances, once the young child is recognized as having some disability - at earliest stages more likely to be a physical or sensory disability - then in most areas of the country there will be some help available for the parents and their child, but the amount and kind of help will vary over the United Kingdom. Factors which will affect the level and quality of help available will partly reflect the type of area in which the parents live: remote rural areas may have poorer facilities to offer in the sense of highly qualified medical personnel, or visiting teachers; inner urban areas may have large teaching hospitals within them but a much greater preponderance of poor housing conditions and unemployment; any area will mirror in its services the priorities of the local providers of services in terms of the diversion of personnel to meet this service need as opposed to that of, say, elderly people.

The discovery of a disability and probably handicap in early infancy or later is invariably a distressing experience for the parents and there is increasing guidance for those professionals whose role it is to break the news to the parents, such as health service workers, especially doctors, for besides the alleviation of unnecessary distress by sensitive disclosure, later parental attitudes to the use of professional help may be soured by initial unhappy experiences. It has been recognized, however, that it is difficult for people who have not usually had handicapped children themselves to empathize fully with a parent in such a situation, and for this reason local parents' groups have been formed in some areas of the country, either as individual groups or as branches of national organizations campaigning on behalf of particular disabilities, which include among their activities support and informal counselling for "new" parents. Local authority social workers can be involved also in a supportive role, as can in some cases social workers attached to voluntary or philanthropic associations. Many health visitors will also regard a major part of their work with families with young handicapped children as not only the giving of advice on health matters but as giving general support and information including information on other kinds of help available. Some health authorities employ health visitors who have a specialist role in supporting parents of handicapped children, either providing back-up support for non-specialist health visitors, or taking direct responsibility for health advice and support for the parents. There is some variation in this role where it exists, in that in some areas the concern of the specialist health visitor will be with any child with an identified handicapping condition, in others there may be a specific commitment to a particular kind of handicap, physical or intellectual. Local education authorities are involved mostly indirectly with parents of very young babies with handicapping conditions; they have permissive powers to make provision from the age of two onwards, but in some cases have been involved from a much younger age, as, for example, in employing peripatetic (itinerant or visiting) teachers of the deaf who work with parents of hearing impaired children from the time of discovery of the hearing loss, which may be in the first year of life. Some local education authorities - chiefly some of the larger authorities - employ peripatetic teachers who serve children with other handicaps also: physical (motor), visual or intellectual, but although it was a recommendation of the Warnock Committee that there should be a visiting teacher service for all young children with disabilities and specific difficulties this is by no means yet a universal practice in the United Kingdom. Probably the best developed multiprofessional service for handicapped young children in the United Kingdom is that which has developed over the past three decades for hearing impaired children. The detection of hearing loss begins in early infancy in many areas, when health visitors and baby welfare clinic doctors use simple tests of response to sound with all babies as part of routine developmental checks. Babies who fail to respond in these tests can be referred to community or hospital audiology services where further investigation can take place. It is generally thought that a reliable response can be obtained in most babies of seven months and upwards to the simple free field testing method employed. This will not necessarily discover partial losses, but will give an indication of severe hearing loss, or rather, lack of response to sound stimuli at the intensities of everyday life or more.

Because language is a function which is developing from birth in normally hearing babies, it is considered essential to compensate for the deprivation of sound stimuli in hearing-impaired babies and children by providing a service which not only seeks to improve the hearing function, through mechanical aids, but also an educative service for parents and children, to help the parents in these early years especially to help their children to acquire speech and language. The peripatetic teachers of the deaf visit homes, nurseries and schools to provide support and advice to parents and professionals, as well as acting frequently as part of the audiology team that functions through the NHS. The employment of technicians to make ear moulds to fit within the ear as part of the hearing aid, the hearing aids themselves, and the maintenance of aids, are also provided free through the NHS (but local education authorities pay for the group and other hearing aids used exclusively in educational premises such as schools or units in schools, for deaf or partially hearing children). Similarly, prostheses for babies and children with physical and sensory handicaps are provided through the NHS, with some special equipment being paid for and provided in educational premises by local education authorities or philanthropic and voluntary organizations, and some aids and adaptations in the home by local authority social service departments.

The pre-school period and help for parents

The NHS provides not only medical treatment but also a varying amount of support for parents of young pre-school children. Child development centres, or assessment centres, operate in many parts of the country, usually linked with a hospital, and some in conjunction with local authority education and social services. Most of these centres have access to psychologists, teachers and social workers as well as medical and nursing staff and paramedical therapists. The centres vary in many ways, including the length of assessment offered and support given to parents. Some offer observation and fairly intensive assessment over a short period of time, with the aim of finding further placement if necessary in different facilities including nursery classes in special schools or in day nurseries, others offer a longer, more extensive assessment; regular attendance over a longer period allows relationships to be built up with parents and child. Some centres provide opportunities for short-term relief from care of the child as well as support, advice, and the companionship of other parents and staff.

Some local authorities also provide centres for assessment as well as care and educative experiences for young children with identified disabilities and difficulties or others about whose development there is concern. Some of these centres are provided by education departments, in the form of nursery classes or units, others by social services departments, including some in day nurseries. Some of these facilities are provided jointly, or in collaboration with voluntary organizations or with funds donated by these organizations or charitable bodies: there is no one pattern to be seen throughout the United Kingdom, and some areas are more poorly served than others. Matters such as the transport of children and their parents to these facilities are solved in different ways also: in some areas the local authority provides transport, especially for children going regularly to a nursery class or centre, with paid escorts, in others volunteers from organizations such as the Red Cross or the Women's Royal Voluntary Service provide a rota for transporting mothers and children.

One of the major changes of the past three decades has been the increasing role of parents themselves, not only in self-help activities, but as educators of public opinion and pressure groups, sometimes playing a vital part in bringing about public recognition of a particular handicapping condition. It is not only parents of children with identified handicaps who have been taking an increasing interest in providing stimulating and educative experiences for their young children. The Pre-School Playgroups Association has a very large membership in the United Kingdom, and many mothers of young children from all strata of society belong to local pre-school playgroups where mothers and young children, sometimes with paid organizers or helpers, can come together for the purpose of providing valuable social and play experiences for their young children, and support and enrichment for each other through the joint pursuit of a common purpose. When local education authorities, reflecting in part the increased interest in the educational and developmental needs of young children, began to increase their own pre-school provision for four-year olds and even some three-year old children, the pre-school playgroups began to consider the needs of mothers with even younger children, while still continuing their role where needed with the older pre-school child. There has been an expansion of facilities for mothers and toddlers or even babies: there are now many mother and toddler groups, and One O'Clock Clubs, some organized by local voluntary effort, others sponsored by local authorities or philanthropic associations. These developments, which came about without the specific intention of helping children with handicapping conditions, have proved to be a valuable resource nevertheless in the support of mothers of children with disabilities and difficulties. Most ordinary playgroups will accept a proportion of children with identified or possible handicaps, usually to about a tenth of the size of the group. However, the educative value of the group for all mothers can be

substantial also. They are able to learn from each other about ways of helping their young children to develop, and also to become aware sometimes that their child has a developmental problem which needs help. In some areas of the country health visitors, peripatetic teachers, therapists and psychologists may visit playgroups regularly, and through this contact develop yet another way of identifying and helping children who are vulnerable because of difficulties or retardation in social, intellectual or physical development. One particular kind of playgroup has always had the purpose of helping handicapped children as its central role, and that is the Opportunity Group. In Opportunity Groups the aim is to follow the universal playgroup objectives, but to bring children with and without disabilities together. The purpose of support for parents, especially mothers, is also central, whether through activities such as discussion of common problems, or through providing temporary relief from the care of the child even if only for a few hours. Many Opportunity Groups accept mothers with handicapped babies as well as toddlers and older pre-school children. Although the intention of the playgroups movement has been to provide a participatory activity for mothers as well as children, and although most playgroups have been founded and run by parents, there are also playgroups and Opportunity Groups which have been initiated by professionals from the health, education and social services, or by philanthropic organizations, but even with these, the aim is always to involve the parents and to provide support and educational experiences for them, especially for those whose children may have problems of development.

A facility for parents of handicapped children, from infancy onwards, and often found linked with Opportunity Groups, is the toy library. Toy libraries are now widespread in Great Britain. Parents of handicapped children can borrow toys which have a relevance to the particular developmental needs of their child, and can participate in many of the supportive and educative activities which arise alongside the main activity of the toy library in lending toys. Like many other institutions in the United Kingdom, it is not possible to generalize as to who organizes and runs a toy library in any area. In some areas the enterprise has been undertaken and is run entirely by parents of handicapped children and other volunteers, in others toy libraries have been started and are run by local authority professionals from social services or education departments, or by health service staff, both with parents and other volunteers or by workers and volunteers from organizations such as the Red Cross.

Further help for parents of handicapped children in the form of temporary relief from the care of the child is developing in various ways. Many local authority social services departments provide small hostels or homes, run on family lines, which accept handicapped children for short periods at moments of crisis for the parents or on a regular basis. Another way of providing support is by arranging with volunteer families to offer temporary relief from caring to the parents of handicapped children. Some parents' groups have themselves organized ways of providing this kind of relief for each other. There is much greater awareness today in the United Kingdom that occasional relief from the stress of a continuously demanding caring situation may prevent parent breakdown and so keep the child with its natural family in a more normal situation, and in so doing save the substantial costs to the nation which the provision of alternative institutional care generates. Support and advice for stressed parents is offered in other ways also; in some parts of the country "helplines" are available - a telephone number that any parents can use to talk to a volunteer who will at least listen sympathetically but who can offer advice or refer onwards for any further help from professional services.

Another kind of help for parents of handicapped children is the financial help available through government allowances, such as the attendance allowance parents may receive if their child is over two years old and requires a lot of attention by day or night, with a higher rate paid if the child requires attention both day and night. There are other allowances which are available to any parents such as the family income supplement which is payable to low wage-earners. The Family Fund for Handicapped Children was set up as a way of supplementing existing services for families with severely handicapped children, and can provide help with such items as car hire or telephone installation or special equipment which is not available through statutory provision made by local authorities.

All these aspects of support are relevant to secondary prevention, in that they are aimed at enabling parents to care for their own children even if the extra demands on material, emotional and practical family resources are very heavy.

Starting school and the future

There is no clear dividing line between handicapped children and the rest of the child population: the difficulties and problems of children are of varying magnitude and there are many children who, while not having a clearly identifiable physical or mental handicap, are nevertheless at some risk because they are developing comparatively slowly, and may have problems in meeting the demands of their environment. Emotional problems may arise from situations of

stress within the family, or because the child is failing to achieve the expectations of those around him.

This continuum of need was recognized by the Warnock report, with regard especially to the special educational needs of schoolchildren. While only about 1.8 per cent of the school population is receiving special educational treatment in special schools and units, the report pointed out that on the basis of a considerable amount of research, about 15 to 20 per cent of the school population have special educational needs, if the recognition of any additional help from teachers or other professionals, modifications to the physical or social environment or the curriculum are accepted as some form of special education. While the demands of the school environment may create extra problems for some children, which only become apparent when the child begins to attend school, it may be possible to identify some children who are at risk of failure before they begin school, and many of the preventive services described earlier will be involved in the discovery, also, of these minimally handicapped children who may be debarred from achieving a greater potential by problems that become intensified as they encounter failure. Probably the majority of those children who are discovered early will be identified by community services, working with parents, but very many more will not be noticed until they enter school.

One of the matters causing a great deal of concern to the caring services in the United Kingdom today is the fact that by no means all mothers attend child welfare clinics regularly or at all, and it is within this group of non-attending families especially, which include many of poorer socio-economic status and education, that a disproportionate number of children with problems is thought to occur. A good deal of discussion is taking place at national and local level and attempts are being made to encourage parents to use available services regularly, and in some parts of the country new approaches are being considered, or tried, to take the services to the families in their homes if there is a record of non-attendance at clinics.

Some local education authorities operate facilities which attempt to compensate for the lack of developmental opportunities of some young children starting school, either in the immediate pre-school period, or early in the start of the school career, which begins at five years of age in the United Kingdom. Nurture groups, developmental units, and similar group facilities are one attempt to provide this extra help; home visiting teachers, working with other professionals such as psychologists, health visitors, social workers and doctors, are another. While there is a great deal of interest in this approach, because of financial restraint and lack of adequately trained personnel it has not been widely implemented as yet.

There is a school psychological service usually with links with a child guidance clinic, in most local education authority areas in the United Kingdom. The work of discovery and diagnosis of the needs of schoolchildren is very frequently carried out by educational psychologists working with teachers, with other professionals such as school doctors, and with parents. The present general ratio of educational psychologists to school population is about one to ten thousand in England and Wales; Scotland has a much better ratio, of about one to four thousand. While many local education authorities attempt to keep the numbers of children in a nursery class comparatively small (somewhere between 20 and 30 children with a teacher and a nursery assistant), school beginners' classes in primary schools may be larger. Although an attempt is made during initial teacher training, and later through in-service courses, to equip all teachers with a knowledge of the range of normal child development and the possible social, emotional and learning problems of growing children it is generally accepted that a great deal more needs to be done in teacher training if all practising teachers are to become skilled at identifying and helping children with special educational needs, and the Warnock report made major recommendations to this end. Many teachers who work in the field of special education also require further training: only among those who work with children with hearing and vision impairment where special training is mandatory, is there a substantial proportion of teachers with special qualifications. It is hoped that an expansion of special training, for serving teachers, may be achieved if new distance teaching plans through the Open University come to fruition. Further training for other professionals who work with children and their families, such as doctors and social workers, is also in the process of development and change; among doctors, there is a great shortage of child psychiatrists, which hampers the development of traditional team work in child guidance clinics.

Child guidance teams and psychological services, working with other community services, and voluntary organizations on occasion also, offer diagnosis and therapy to some children with psychiatric problems, as well as a counselling service for parents and for professional workers who may be dealing with families.

The Court report and the Warnock report, appearing within a couple of years of each other, have, both during the deliberations of the Committees of Enquiries and since, created a great

deal of interest in the social, emotional, health and educational needs of children. Much of what these committees were adumbrating was work of a preventive nature and there is plenty of goodwill towards their message. Unfortunately, prevention is sometimes less dramatic than treatment, and by its nature not easy to assess in terms of cost. Therein lies one of the difficulties, in that when acute problems are present there is usually a statutory demand, or social need, to take action to alleviate them: prevention is less dramatic. Some of the social and emotional problems of children may arise from deeper roots, such as the social and economic condition of the parents, and while these matters, also, are the subject of concern to government and responsible citizens of the United Kingdom, their resolution is in large part dependent on political and economic decisions which are bound by other constraints.

In conclusion, then, it is perhaps wise to reiterate the statement made early in this study: that in the United Kingdom the work of discovery and secondary prevention, including education and therapy, of children with handicapping conditions is in general terms a co-operative undertaking, with government and voluntary (including philanthropic) organizations sharing the task. While there are statutory requirements which provide a basic level of services, not all parts of the country attain excellence, but with continued goodwill from both professional and parents, and some freedom to innovate, it is hoped that services of the highest standard may eventually reach all families of children with disabilities and difficulties.

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III. CONCLUSION

K-G. Stukât

The main purpose of the present Unesco study is to describe the situation of early care for handicapped children in a way that can be useful for the future development of policies and services in different countries. Therefore an attempt will be made in this concluding section to bring together some of the main ideas and experiences that are reflected in the national papers. First, a number of broad issues will be discussed, and after that some more specific aspects of early care will be taken up. This summary of experiences and viewpoints is intended to have a guiding function. But the conclusions from the national reports should not be regarded as guidelines in a narrow sense. They should rather be seen as suggestions which can be developed, adapted and applied in accordance with the varying needs and conditions of different countries.

General issues

Early detection and intervention - a common responsibility. It is stressed in several national papers that early care cannot be limited to institutional care, nor can it be the exclusive concern of a few specialists. This broad view has many aspects and is expressed in different ways. One consequence is that remedial work must take place at different levels. The Danish paper distinguishes between work on a political-administrative level, giving relevant information to politicians and administrators, an institutional level, working with staff and parents' associations, and an individual level, including direct contacts with the child and its family. The Argentine report emphasizes the need for joint action between family, school and community, as well as the need for creating awareness of handicap problems in the community.

Another consequence of the insight that early care for handicapped children must be a common responsibility for many is that an interacting team is the most natural work model. A handicapped child and its family need medical, social and educational help, and these services should not be isolated from one another, but co-ordinated. This presupposes good communication between specialists. There are some important conditions for adequate communication. The people who are responsible for the child must have a common frame of reference, e.g. that the child should be helped into an integrated life. They should also have a fair amount of knowledge about one another's fields of expertise. And, as pointed out in the Canadian paper, "deprofessionalization" may be desirable for efficient communication to take place. This condition becomes particularly important if - as most papers strongly recommend - parents are involved in the care programme. A too sophisticated and technical jargon makes the parents feel alienated, when they should instead be "in the picture".

The family - the basic unit for early care. Most national reports give a central role to the family of a handicapped child. "For the handicapped child, the family is the most valuable asset" (Canada). This view accords with recent research on child development. The child is part of a social network, and its most frequent and intense interactions are with family members. Human ecology research by Bronfenbrenner and others has clearly demonstrated the importance of home factors for the child's early development. For the handicapped child, the parents' knowledge of handicap problems is a key factor. Unfortunately, as witnessed by the authors of the national reports, the information level among most parents with respect to handicap problems is low. To increase parent awareness and knowledge is an urgent and challenging task for future care programmes. We shall revert to this issue later.

Although there is thus a strong need for the dissemination of knowledge about handicap problems to parents, much can be gained already under present conditions by involving parents in care programmes. Many examples are given of how parents can actively participate in intervention programmes if they are given proper instruction, stimulation and equipment. But parents should also be involved in other functions. The Danish paper says: "Where possible, the parents should participate in decisions and have a say in decisions about their child". In the Canadian report it is pointed out that "the family unit ... constitutes the primary source of care for the child and ensures continuity between the various types of care". Parents can also be a strong pressure group. In many countries the parents' associations have been pioneers, have introduced new ideas (such as the normalization principle), and have been an active force behind governmentally decided reforms.

Much can be done to help parents in their care tasks. In the reports we are given examples of courses in handicap problems, stimulation and instruction through home visitors, and parent-helper schemes by which more experienced parents share their experience with parents who are in an acute problem situation. Financial support to families and opportunities for parents to be relieved for a period of time exist in the United Kingdom.

Diversity but co-ordination. At present services for handicapped children are offered by various agencies: central government, local communities and voluntary organizations. Different professions are also involved: physicians, nurses, psychologists, social workers, teachers, speech therapists, etc. This diversity of responsible agencies and professional categories is desirable and even necessary. But it is emphasized in several reports that the different services must be co-ordinated so as mutually to support one another. The need for co-ordination exists at different levels. At governmental level it is recommended in the Sri Lanka paper that early handicap care should be part of the national long-term policy programme to ensure that handicap problems will be given serious attention. For co-ordination at community level the Karlebo model in the Danish paper offers a concrete example that has been tested in practice. Several examples of multidisciplinary team models for work at field level are given in the reports.

Even when co-ordination is established, there is always the risk that the child and its family may be confused by having to deal with several different agencies and professionals. To avoid this risk it is proposed that family and child should have continuous contact with one person. Similarly, at community and state levels, one agency should be given the main co-ordination responsibility. This question was discussed at a Unesco meeting of experts on special education in 1979. The delegates concluded that "comprehensive programmes for disabled persons will require a full range of services, health, social welfare, rehabilitation, employment placement, etc., and this will necessarily involve close co-operation among various governmental, community and voluntary agencies. Some agency, however, must take the lead and assume the responsibility for the child". Such a national body (council or commission for the handicapped) was seen as a necessary step, particularly for countries which are beginning to develop provisions for handicapped children.

Integration. In recent years the principle of integration or normalization has often been a guideline for reforms in the field of handicap care and special education. Integration is regarded both as a goal for services and a characteristic feature of the services. It is a goal to help the child develop such skills and such confident self-concepts that are necessary for satisfactory participation in ordinary social life and work. The way to achieve this is to let the handicapped child grow up in close contact with other children, as opposed to referring him to an isolated or segregated environment.

Integration for young handicapped children takes different forms, as illustrated by some (but not all) national papers. The home visits programmes (e.g. Jamaica) give the child an opportunity to remain in its natural environment. In the same way, the inclusion of handicapped children in day nurseries and pre-schools represents an integration policy.

Although integration is no doubt valuable as a basic guideline for special education and other handicap care services, the risk should be pointed out that integration may be used as an easy solution to intervention problems. There are handicapped children who need special programmes in special environments, at least temporarily. And one should not forget that a handicapped child who is placed in a regular school still needs special attention and most often also special resources. The intervention programme should be individualized even when it takes place in integrated settings.

There is another aspect of integration that deserves some consideration. As pointed out in the United Kingdom paper, "handicap" is a relative concept. A handicap is not only dependent upon the degree of disability, impairment or deficiency, but also upon the expectations and standards set up by other people ("society"). These standards should and can tend towards greater tolerance of deviations among individuals. This should be part of a long-term care programme not only to adapt the handicapped child to normal society, but also to make society more ready to accept individual variations.

Detection is not enough. In the Jamaican report it is mentioned that early identification of handicaps on a broad scale has not been attempted because of the likelihood of being overwhelmed by a demand that could not be met. The Canadian paper describes an earlier period when screening of handicapped children was undertaken largely for the purpose of classification or labelling and subsequent placement in institutions, probably often a rather passive form of intervention. The lesson that can be learnt is that identification of handicaps is not very useful if the detection is not followed by active intervention. Detection without intervention may even have negative consequences by marking out or "stigmatizing" the child as deviant.

What has been said above does not, of course, invalidate the value of large-scale surveys with the purpose to estimating the need for action programmes. Such surveys in different handicap fields is no doubt an efficient first step to broad-scale action. Objective information from the surveys often gives convincing evidence of the strong need for expanded services and thus acts as an agent of change.

Constraints and step-by-step development. Several national papers (Jamaica, Jordan, Nigeria, Sri Lanka, Thailand) present numerous examples of constraints that impede the development of early care services. Poverty, shortage of qualified personnel, ignorance, negative attitudes, remaining primitive beliefs and practices, etc., are mentioned as obstacles to satisfactory programmes. It is of course unrealistic to assume that a fully fledged care programme can be developed in a short-term perspective under such adverse circumstances.

However, as can be seen from the national reports, development of services can take place in spite of great difficulties and limited resources. Of particular interest are the examples of simplified service models which are adapted to the present scarcity situation but can be expanded later on. A model of this kind is explicitly described in the Jamaican paper. The Early Stimulation Project has developed a strategy intended to meet the needs of a higher number of handicapped children at a lower cost. The model includes the basic steps of a care programme: identification, individual planning, intervention and evaluation. Identification is carried out by developmental screening techniques which are applied in the field by school-leavers and youth corps workers who have been trained in the Denver Developmental Screening Test. Individual planning for the children who are identified as handicapped includes medical diagnosis and assessment of social and educational needs. This part of the programme is performed by a team consisting of youth corps workers, nurse, doctor, teacher and social worker. In this team the members of the professional staff act as supervisors. Care is taken to register the findings and decisions of the planning procedure in record files so as to facilitate further follow-up. Intervention activities take place in the child's home. On the basis of a checklist of developmental skills, a special curriculum (the Portage Curriculum) is followed. Stimulating learning activities are demonstrated to the mother by a child development aide who visits the home weekly. The mother is encouraged to carry out the training daily. Evaluation of the child's progress with the curriculum takes place at a centre every three to six months, and the programme is revised if necessary.

A characteristic of the simplified model described is that non-professional personnel are used to a considerable extent. Perhaps some people would feel doubts about the quality of the contributions that can be made by young people with only limited training. The Jamaican experiences seem, however, to be good, and similar positive experiences are also reported from elsewhere (e.g. from compensatory programmes in which students and housewives have been engaged). It should also be observed that the non-professional staff works together with a professional team which has supervisory functions. One advantage of involving non-professionals in the care programme is that contacts with the children and their parents are probably more easy and relaxed than with professionals.

Another characteristic of the model is that evaluation constitutes an integral part of the programme. This is a feature that should be generally recommended for new programmes. By evaluation, information is obtained on what parts of the programme need to be improved. In this way evaluation serves as an important vehicle when one wishes to develop a simplified procedure into a more elaborate one.

Special aspects

Prevention. Most national reports have included prevention in their accounts of early care services. This is justified, since prevention-detection-intervention constitutes a complex with much overlap between its parts.

The papers give clear evidence of the fact that prevention of handicaps is possible to a considerable extent if existing knowledge of the causes behind handicaps is applied in practice. But they also shed light upon the problems connected with large-scale action programmes. There is consensus that an efficient prevention strategy must include dissemination of information about risk factors to everybody, not only to expectant mothers. Examples of important knowledge to be generally disseminated are the risks connected with drugs, malnutrition, rubella, Rh-factor incompatibility, certain tropical diseases, venereal diseases, unskillfully performed abortions, high and low pregnancy age, etc. Some of these risks call for more specific action, such as protective vaccination, tests to ascertain parents' blood groups and eugenic counselling. For others, more general health and social welfare measures are necessary.

Although practices vary in different countries, pregnancy is usually a period when information to the parents is intensified, through special pamphlets, ante-natal courses and home visits. Most countries also have a medical check-up programme for expectant mothers, including general health examination and specific controls, e.g. analysis of amniotic fluid in order to detect chromosome anomalies and metabolic disorders. In some countries expectant mothers are invited to a series of health check-ups; in others resources are inadequate. But even when

resources are available, many women do not take advantage of the opportunity; often those who are most in need of help during pregnancy. Thus, as stressed especially in the United Kingdom paper, ante-natal care requires social action, directed to the least privileged and most vulnerable mothers, as well as medical help.

Some expectant mothers are more likely than others to bear a child who will become handicapped. A number of risk factors have already been mentioned. The "high risk" mothers need careful attention during pregnancy. The reports describe medical programmes, and some papers also emphasize the need for social and financial support. The risk situation sometimes makes it necessary to terminate pregnancy.

The peri-natal period is also important from a preventive point of view. There are now available tests by which such handicapping diseases leading to mental retardation as phenylketonuria, hypothyroidism, Tay-Sachs and Folling's diseases can be discovered and also to a considerable extent ameliorated by biomedical treatment.

Detection. As pointed out earlier, there is no sharp boundary between prevention and early detection. The Canadian paper describes the Apgar screening procedure based on physical and behavioural measures. This examination can be seen as part of prevention but also makes it possible to detect early disability.

Certain handicaps (or rather handicapping disabilities) can be detected very soon after birth, e. g. spina bifida, cerebral palsy, cleft palate and Downs syndrome. By appropriate screening devices other impairments can be detected during the first year (or even the first months) of life, such as hearing and vision loss. By means of developmental scales, indications of general behavioural retardation can be found at the age of one to two years. Language retardation and speech disorders can be traced (although not quite reliably) in the age period of three to four, as also emotional disturbances and behavioural problems. The fact that different handicaps make their first appearance at different ages makes continuous follow-up by repeated screenings necessary.

These screenings should, however, not be a repetition of the same procedure. Rather, a "structured" screening programme should be followed, each time focusing upon those aspects of development that are most important to assess at a specific age. Generally it can be said that more complex functions should be given more attention as the child grows older. The Danish paper reports that a restructuring of routine medical examinations has taken place recently, with more emphasis on psycho-social aims, and also making the examinations more interdisciplinary.

Most screening programmes give special attention to children who are at higher risk than others. Existing "risk criteria" emphasize physical risk factors, such as low birth weight, foetal infections, defects of ear, nose or throat, etc. There are, however, strong reasons for including environmental conditions also among the risk factors. Many children live in impoverished or otherwise deprived circumstances, and they run the risk of becoming mentally or behaviourally handicapped even when they are born without disabilities or impairments.

Intervention. If a handicapped child is left without care, there is a high probability that the handicap will grow in a cumulative way. The handicap makes learning and social adjustment difficult (a primary effect), and as a result the child develops a negative image of himself and perhaps also attitudes of withdrawal from or aggression towards others (secondary effects). Early intervention has the purpose of both reducing the primary handicap and preventing the development of secondary effects.

Intervention should begin as early as possible. This is stressed in several reports, and rightly so. Development research has drawn attention to the existence of "sensitive" and "critical" periods which occur very early and during which the opportunities for basic learning are at a maximum. Sensory and motor stimulation during the first year of life for disabled children and children with hearing and vision impairment is therefore justified. It is, however, necessary that the early training be followed up through the pre-school years and expanded so as to include cognitive domains as well.

The national papers give several examples of intervention that takes place in various settings: at child health centres, in day nurseries, playgroups and pre-schools. It is stressed that intervention should be broad in scope and include psycho-social as well as medical and educational aspects. This calls for co-ordination and team-work. The Sri Lanka report mentions co-operation between special educator, psychologist and optometrist in work with vision handicapped children, and the Danish model is built upon co-operation between psychologists, social workers, teachers

and specialist consultants. Other desirable features of intervention programmes that are pointed out in the papers are maximum use of local community services (Canada), priority of admission to playgroups (United Kingdom), locally accessible services (Sri Lanka) and use of supporting teachers (Denmark).

The most explicit point made in the national reports is probably that intervention must involve the parents in order to have a real impact. Consequently, many intervention programmes are home based, either by having peripatetic teachers visit the families or by preparing the parents for remedial work at special courses. Not very much specific information is, however, given about the contents of the stimulation programmes. There are reasons to believe that a good deal of developmental work has still to be done in order to meet the needs of curricula and training methods for the youngest ages. This is no doubt an important area for international co-operation and exchange of information. Although there are cultural differences that must be taken into consideration, the basic goals for early intervention are universal, namely:

to strengthen, correct or compensate for impaired functions;

to develop the child's positive assets;

and thus to create confidence and self-respect.

Staff development. In some countries the lack of qualified personnel is felt as a serious obstacle to satisfactory early care. Independent of this quantitative problem, all the national papers express need for reformed staff training programmes. Present specialist training in medicine, education, psychology and social work is not adapted to service tasks with young handicapped children. The paediatrician, the psychiatrist, the teacher (even the special teacher) and the child psychologist too often lack adequate knowledge of the problems of early detection and intervention. In addition, few professional training programmes prepare students for the type of multidisciplinary team-work that is necessary in early care service. The need for practical as well as theoretical co-operation with other professions should be taken into consideration both in pre-service and in-service curricula and courses. It is evident from the national reports that non-professional groups play an important role in early care. Partly, this is so by necessity (scanty resources), but partly also because some non-professional groups, and particularly parents, are regarded as best suited for the task of giving continuous stimulation to young disabled children. The competence of parents, students and others involved in early care is being improved in different ways: by courses, by personal counselling and by making handicap service part of the school curriculum.

Dissemination of information. The general level of knowledge in society is of decisive importance for the quantity and quality of services for handicapped children. Where ignorance and adherence to old beliefs prevail, there is low motivation to develop services or even hostile attitudes to the handicapped. And without knowledge it is not possible for parents to help their handicapped child even when motivation to do so is very strong. Therefore dissemination of information about handicap problems and raising of the general knowledge level is a key factor in a policy programme intended to develop early care services.

The national papers describe many different ways to spread knowledge and create awareness of the problems, needs and rights of handicapped children. The Argentine report presents a very extensive list of information channels that can be used: mass media, meetings, visits and publications. The Danish report stresses the importance of personal contacts at health centres, home visits and parent meetings. Information campaigns on the need for preventive measures are mentioned in the Canadian and Jordanian reports. All these dissemination options are valuable and no one should be used to the exclusion of the others. Each of them has its specific function and this function should always be related to the purposes and the target groups of an information drive.

Some target groups are given special attention in the reports. One is expectant mothers and parents of newborn babies. During pregnancy and the time after birth the parents are particularly motivated and receptive with respect to information on child development and handicap risks. This optimal situation should, of course, be exploited to the utmost. But the information campaign must be followed through by further dissemination of knowledge later on. When the child is very young, the parents' interest is most often focused on its physical well-being and problems related to the child's mental and emotional development tend to be postponed. Information on such problems should be given priority in the follow-up programmes of information.

In a long-term perspective and with respect to its impact on public awareness of handicap problems, the information conveyed to young people before they have reached the age of parenthood

is highly important. Therefore the Canadian and United Kingdom practices of offering courses and curricula on early care to secondary-school students are worth serious consideration, as is also the Jamaican initiative of involving youngsters in active handicap field-work. In many countries programmes of education for parenthood are currently under consideration or being planned. The implementing of such programmes on a broad scale would no doubt strongly increase the opportunities of raising the public knowledge and awareness level with regard to early care for handicapped children.

It is pointed out in some national papers that politicians and administrators constitute very influential and strategic groups for the national standard of early detection and intervention. Therefore these groups are important target groups for information. Even if formal programmes of the type offered to care personnel are seldom feasible, administrators should be invited to conferences, courses, study visits, etc. adapted to their special need for information. The knowledge thus gained can be expected to have a substantial impact in both the short and the long run.

Final remarks

At first sight, the situation regarding early care for handicapped children does not look altogether encouraging. There are great variations; in some countries the services are beginning to reach a reasonable standard, but in others a great deal of development is apparently needed. However, it can be concluded from the accumulated information reflected in the reports that a considerable amount of knowledge is already available about efficient methods of prevention, detection and intervention. If there were practical conditions to apply this knowledge, immense human gains could no doubt be made. A recent report on mental retardation, commissioned by the World Health Organization, "Mental retardation: prevention, amelioration and service delivery" (1980), says: "It has been predicted, for example, that the incidence of the more severe conditions (of mental retardation) in the developed countries could be halved before the end of the century, using present knowledge and techniques". A similar conclusion is probably justified also for other handicaps, and there is no reason to believe that the improvements in the developing countries would be less striking.

Slow development within the field of handicap care is usually explained by reference to inadequate economic resources. This may be a very realistic explanation, but it is worthwhile recalling a Unesco report in 1978, "Economic aspects of special education", which rather convincingly demonstrated that special education, care and rehabilitation of the handicapped is justifiable not only on humanitarian but also on economic grounds. It is, of course, not to be expected that this knowledge, even if it well deserves to be spread, will have immediate consequences for handicap services. Therefore the models for simplified and less costly early detection and intervention programmes described in the national papers, and perhaps especially the Jamaican programme, are of great value as suggestions for intermediate solutions. If continuous evaluation is made an integral part of programme development, there will also be built in an efficient means for step-by-step or successive improvement of the programme.

The Unesco national case-studies demonstrate the value of bringing together experiences from different countries. Further international exchanges of ideas and developmental activities in the area of early care for handicapped children are important. This should be done on a regional as well as a universal basis. The International Year of Disabled Persons in 1981 offers a challenge and a special opportunity for initiatives of this kind.